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PART II A AND B.

MUZAFFARGARH DISTRICT

LEIAH TAHSIL

WITH 3 MAPS.

1916.

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1919

PREFACE.

The Gazetteer of the Leiah *tahsil* has been prepared from the 1883-84 Gazetter of the Dera Ismail Khan district, the information being brought up to date by **Mr. J. Parsons, I.C.S.**

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PART A.

PART A.

CHAPTER I.—DESCRIPTIVE.

Section A.—Physical aspects.

Position and area.

Leiah forms the most northern of the four *tahsils* of the Muzaffargarh district and is a roughly rectangular block of territory 2,417 square miles in area, its greatest length from north to south being 50 miles and its greatest width from east to west being 64 miles.

Boundaries—North and south.

On the north it is bounded by the Bhakkar *tahsil* of the Mianwali district and on the south by the Sanawan *tahsil* of its own district. The river Indus flowing practically due south meanders over the western boundary which, however, has been recently fixed and no longer depends upon the vagaries of that mighty stream. Beyond the river lie the districts of Dera Ismail Khan and Dera Ghazi Khan; of the former district the Dera Ismail Khan *tahsil* forms the boundary for the first three miles and the Kulachi *tahsil* for the next seventeen. The Sangarh *tahsil* of Dera Ghazi Khan then succeeds and continues to the extreme south-west corner. On the east the Leiah *tahsil* marches with the Shorkot *tahsil* of Jhang and the Muzaffargarh and Sanawan *tahsils* of its own district.

West. East.

Tahsil head-quarters.

The administrative head-quarters of the sub-division and *tahsil* are located in the town of Leiah which is situated on the Sind-Sagar railway line. This line traverses the *tahsil* from north to south parallel to the Indus and at an average distance of 12 miles from it, and brings Leiah within a three hours' journey of the district head-quarters.

Position of Leiah town.

The exact position of Leiah town is in 36° 58″ north latitude and 70° 58″ east longitude and is about 500 feet above sea level.

Physical features.

The most striking physical feature of the *tahsil* is the startling divergence between the Indus valley on the west and the desolate uplands which form the central and eastern portions of this territory.

Indus river bed.

The bed of the Indus is wide and straggling and all through the winter there are broad stretches of barren sand along its course, while the channels are numerous and perpetually shifting. The tract usually occupied by the main stream is roughly four miles in width, containing innumerable islands and shoals.

Kachhi or Nasheb.

Along the whole length of the river lies the broad belt of alluvial land known as the Nasheb or Kachhi, intersected by

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creeks and usually flooded during the monsoon season when the Indus rises.

Kachhi or Nasheb.

This belt is on the average some eight miles wide, and is abruptly succeeded on the east by the high-lying sandy plain of the Sind-Sagar Doab of which the whole of the rest of the *tahsil* is constituted.

Thal.

This desolate area is known locally as the Thal as opposed to the Kachhi. The line of demarcation consists of a bank some 20 feet high in the north of the *tahsil* but rapidly falling away to the south until below Kot Sultan it is not more than 2 or 3 feet high and ceases to be the clear landmark which it was further north. This bank is undoubtedly an old river bank of the Indus.

Meaning of the term Kachhi.

The term Kachhi literally means an armpit and is applied to low tracts lying under a high bank. It must not be confused with the term *kacha* which implies a liability to fluvial action. All the Thal proper is high above the reach of inundation even in the greatest floods, but below Leiah the Indus occasionally overflows the Thal lands immediately adjoining the Kachhi.

Description of the Kachhi.

The Kachhi is on the whole a pleasant country, 286,418 acres in extent or one-third of the whole *tahsil*. About half its area is cultivated, the remainder being overgrown with tall *munj* grass and near the river with low tamarisk jungle or *lai* (tamarix dioica).

Most of the creeks intersecting the country have well-defined beds of moderate size and for the greater part of the year they flow up to their banks. In years of low flood small embankments are thrown across the channels to retain the water where required. Wells, *jhalárs* and occasional villages are scattered along their sides and the cultivated fields come down to the water's edge.

The river islands.

The river islands are mostly overgrown with a dense grass jungle which is a favourite cover for wild pig and hog deer (*párha*); this grass is saccharum spontaneum, locally known as *kan* and must be distinguished from the *kána* or *munj* grass (saccharum sara) which at a distance it somewhat resembles.

The Kacha circle of the Kachhi.

The outer portion of the Kachhi towards the Indus is very much at the mercy of the river and its caprices and is in consequence mostly destitute of wells, the cultivation being all *sailába*. Here and there, however, as at Mochiwala, where the well area extends further than usual from the Thal bank, wells are to be seen on the very edge of the present stream.

This part of the country has few or no trees, though here and there, especially to the south, there are stretches of *bhani*

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Physical aspects.

The Kacha circle of the Kachhi.

jungle. The *bhani* is a kind of poplar (populus Euphratica), somewhat resembling the birch in general appearance and colour of the bark; where allowed to grow, as in the Khokkarwala *rakh*, it attains a moderate size but elsewhere it rarely exceeds 15 or 20 feet.

Large waste areas of unculturable sand or thin deposits of new soil are found, and besides estates actually in the river bed there are others which are only inhabited during the winter and early summer.

This outer area forms the *Kacha* assessment circle of the Kachhi as opposed to the *Pakka* circle or inner portion of the Kachhi.

The Pakka circle of the Kachhi.

All through the Pakka there are almost invariably pleasant clumps of trees round the villages and wells and the country is fairly wooded. *Sísham* here called *tahli* (dalbergia sissu), tamarisk, here called *tuhla* and *kaggal* (tamarix orientalis), *siris* (acacia speciosa), *ber* (zizphus jujube), *kikar* (acacia arabica), and *jand* (prosopis spicigera) predominate, while *pípal* (ficus religiosa) is less seldom seen; there are some groves of date palms (phœnix dactylifera) generally near the Thal bank, and small clumps are to be found scattered throughout the whole circle.

The Kachhi, where uncultivated and not overgrown with jungle, is always grassy. A coarse grass called *dráth* predominates, but there is a good deal of *talla*, a kind of *dub*, especially on the banks of creeks and *nullas*.

In the cultivated lands, especially such as have long been under the plough, thistles and camel thorn *jowás* grow in great profusion and occasion considerable trouble to the reapers. Among the commoner weeds are *maina* and *singi* species of trefoil which afford useful cattle fodder.

Crops in the Kacchi never fail altogether, though without good floods the yield may be very short. In years of deficient flood the unirrigated portions remain quite waste. The portion which suffers most readily from want of water is naturally the strip nearest the Thal bank, but, on the other hand, it suffers least in years of excessive floods.

The dwellers in the Kachhi are too slothful to move their cut crops out of danger and they stack them on what raised ground is available, in consequence of which they sometimes suffer heavy loss when the Indus rises higher than usual.

Their method of agriculture is haphazard; as little ploughing is done as possible and weeding seems practically unknown.

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Importance of rainfall.

The Kachhi containing no real *bárání* the rainfall does not directly affect the area sown, but it materially affects the area matured and the outturn; owing to its scanty amount its receipt in season is of the greatest moment, and even in years of average fall its unseasonable character has led to complete failure.

Canal irrigation.

In the vicinity of Kot Sultan a small area of on the average 720 acres receives canal irrigation from the Kot Sultan inundation canal which was constructed in 1884. This canal continues into the Sanawan *tahsil*.

Description of the Thal.

The Thal tract comprises the greater portion of the Leiah *tahsil* being 1,053,649 acres in area or two-thirds of the whole, and it is entirely dependent on well irrigation.

A scanty rainfall, a treeless sandy soil and a precarious and scattered pasturage mark this out as perhaps the most desolate tract now remaining in the Punjab. Much of it is real desert, barren and lifeless, devoid not only of bird and animal life, but almost of vegetation. Highest to the north the country slopes steadily down towards the south. Lines of high sand-hills, running generally north-east and south-west, alternate with narrow bottoms of soil—locally called *laks*—which in places is stiff and hard but is more often itself covered with sand. The central Thal is marked by a broad strip of level ground which beginning at Fattehpur runs down in varying breadth towards Mirhan.

The Thal Kalan.

The whole of this central area is known as the Thal Kalan or great Thal and it is by far the largest tract in the *tahsil* of which it occupies the whole of the eastern and central portions, measuring 803,511 acres in all. The country is even more desolate than the Bhakkar Thal to the north, though it seems the site of a much older occupation; the majority of the existing wells owe their origin to the energy of Diwan Sawan Mal, but there is also a very large number of abandoned wells—locally known as *dals*—which are undoubtedly of an older date.

With the exception of the *kari* (capperis aphylla), which hardly deserves the appellation of tree, the country is entirely treeless; the sand is deeper and shifts more persistently under the summer winds than further north, and the *chhember* grass (eleusine plagellifera) is very poor and thin.

Lana (haloxylon salicornicum multiflorum) and the sterile *bui* (panderia pilosa) seem indeed the only things which will flourish in the barren soil.

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On the southern border the soil is so impregnated with salt that the water is undrinkable and the wells are deserted in the summer months.

The Thal Kalan.

The well owners of this country are only half agricultural' for they keep large numbers of stock not only to provide the all necessary manure but as a means of subsistence.

The Jandi Thal.

To the west of the Thal Kalan succeeds the tract known as the Jandi Thal from large numbers of *jand* trees (prosopis spicigera) which constitute its special feature.

The hills are here lower and less regular and the sand less marked; it comprises an area of 249,958 acres.

It too has a central core of firm flat soil which runs, much as a river might, from north to south down the centre of this tract beginning near Karor. The higher spring level and the presence of a somewhat larger proportion of loam in the sand renders possible much more extensive well irrigation than in the Thal Kalan. The whole area is fairly flat, with a good deal of hard soil—*rapper*—in places. It is a *lána* country, but the shrub grows poorly here and the *chhember* grazing is very poor. In the south the *kána* grass from the Kachhi has invaded the Thal and covers a large part of the country round Kot Sultan.

That the Jandi Thal was once far more widely cultivated than at present is proved by the very great number of abandoned wells scattered over its whole area, and by the tradition which, even where there is no sign remaining of a well, confirms the possession of parts of the waste to particular owners.

The Powah.

To the west of the Jandi Thal proper lies the strip known locally as the Powah and Dhaha, bordering the Thal bank previously described, some three miles wide but narrower to the south. The country is thickly studded with wells, each well forming a little hamlet with its farm sheds and out-houses complete. The large villages are mostly found on the Thal bank overlooking the Kachhi beyond the reach of floods. These lands are all sandy and in some cases inferior to the land of the Jandi Thal proper, but their higher spring level and the facility of obtaining manure from the village sites which stud the Thal bank, together with the proximity of the Kachhi for grazing purposes, give them a superior attraction in the eyes of cultivators. In the extreme south, where the Thal bank practically disappears, some of the Dhaha wells receive a good deal of sub-soil drainage.

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Physical aspects.
Flora of the Thal.

The products of the waste play so important a part in the economy of the Thal that they deserve detailed notice.

There is a clearly defined division of the main flora corresponding to the difference in soils.

Lána and *sain* grow exclusively, and *chemmbar* grows best, on light sandy soil; *jál* and *phog* grow best on the firmer soils, and the two sets of plants are seldom combined.

Lána (haloxylon salicornicum multiflorum) should be distinguished from *khar* or *sajji lána* (haloxylon recidivum) and also from *láni* or *phisak láni* (suæda fruticosa) and *gora lána* (salsola fœtida). It is the main food of camels during the summer months and the young shoots also afford browsing to sheep and goats in the spring.

Chemmbar is eleusine flagellifera, a prostrate plant with runners and spiklets which rise to about a foot in height; it springs up in the sand with most astonishing speed after rain, but unfortunately dies down with equal rapidity; it seeds both in spring and autumn. It is excellent fodder for all stock, and the prosperity of the tract depends largely on its growth.

Sain (elionurus hirsutus) is a tall grass the roots of which form usually a compact clump; it seeds in autumn when it often stands waist high; it is an excellent fodder for cattle and horses. A grass very similar in appearance called *phit-sain* is also found, but in reality this is probably primisetum dichotomum; it is usually described as useless, but twice a year it throws out shoots which are eaten by cattle and sheep.

Phog (kalligonum polygonoides) is a small leafless woody shrub which gives out shoots in spring, when it is grazed by sheep and goats; it grows mainly in the firmer soils. The fruit called *phogli* is sometimes eaten but is unwholesome.

The *bui* (panderia pilosa) is universal in the sandier parts of the waste, and this little shrub with its withered twigs and white woolly tufts seems to embody the very spirit of desolation.

About March it throws out a few dingy shoots which sheep and goats will eat when hard pressed but mostly with discouraging results.

Ak (calotropis gigantea) is common, and *akri* (nithania coagulans), a smaller plant of much the same appearance, is also found; goats will eat the young shoots.

The small leafless brooms *kip* (crotalaria burhia) and *barari* (periploca aphylla) are very common and generally accompany *bui*; their only use is for hutting or fuel.

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Flora of the Thal.

Lemon grass (*khavi*) is also found, but is of little value as fodder.

Bakhra (tribulus aratus), a small creeping plant with a spiky pod, is fairly common; it is browsed by sheep and goats and the seeds are eaten by people in time of scarcity.

Smaller fodder plants and grasses are—

madhána so named from its resemblance to a churning stick; this is a good grazing grass;

uthpera or camel's foot; *gorakpan* (convolvulus pluricaulis);

van veri, a long creeping grass; *sijubhana* or sunrise;

nil búti, a wild indigo eaten by camels; *phuli* and *sayahchar*, plants with a small white flower; *ludri* and *budia*, grasses with spiky heads; *sit* and *trangar*, plants resembling *bakhra*;

kamali búti with a flat, thistle-like leaf; *pochki*, a creeping plant with broad round leaves; *nanu*, a bitter vetch; *hemcha* a light fragile grass.

Kortamma or *tamma* (the yellow colocynth) is common and is valued for its cooling properties.

Bhukal, a small leek-like plant which springs up with the wheat on wells, is eaten, and its seeds also, by the people in time of scarcity.

Damanh (fagonia cretica) and *harmal* (pegamum harmala) are small plants of which the seeds are used medicinally.

Jaudal or *phitkanak*, *sinji* (melilotus parviflora) and *batu* (chenopodium album) and *pitpápra* (fumaria parviflora) spring spontaneously on the well courses; the last of these is used medicinally.

A small gourd (*chibhar*) is also found growing wild among the autumn crops and is used in medicine.

Fungi of all sorts are common and are known as *padbahera*; the larger kinds (*khunbur*) are indigestable, but those known as *challi khunbi* are of fair flavour; mushrooms (*khunbi*) grow freely on the sand-hills in the autumn rains.

Pippa is an edible asparagus-like parasite which grows out of the root of the *kari* tree.

While the Thal Kalan is entirely treeless, the Jandi Thal bears great numbers of the tree which gives its name to the tract.

CHAP. I-A. Physical aspects. Flora of the Thal.

The *jand* (prosopis spicigera) is very highly valued and is vigorously lopped for fodder, in which state it is known as *langi.* Here and there a few trees are allowed to grow unchecked, but the majority by ruthless pollarding become gnarled and stunted and present a very melancholy appearance. Its fertility acquires a Priapean sense in the local Hindu wedding ceremonies.

The trees are subject to the attacks of a green beetle called *binda* which sometimes devastates large areas and drives the goats to other parts. The fruit—*sangar*—is much eaten by the poorer classes. The herb-like growth from the foot of the tree is known as *tandla.*

The *jal* (salvadora oleoides), the *van* of other districts, sometimes attains fair proportions and is the chief summer food of camels as *lána* is their winter staple. Sheep will not eat it, but the young shoots are sometimes cut off for goats. It flowers in the spring and the fruit ripens in the summer; this, which in its successive stages is called first *phenkri*, then *machar* and finally when ripe *pilh* (plur. *pilhu*), is a very useful article of diet both for man and beast, and where *jal* is plentiful the poorer classes are wont to desert their huts and lead an Arcadian existence among the bushes during two of the summer months. When fresh it is eaten by the richer classes but not more than once a day; when dried (*kokhir*) and pounded into flour it is eaten more freely. The wood is poor, but is used in houses and the weaker parts of wells; it provides a fuel which stinks in the nostrils even of a Jat.

The *babbil* (acacia jacquemonti) is a species of ground *kikar* common in the better parts of the Thal and much browsed on by goats.

The *kari* or *karita* (capparis aphylla) is a bare leafless tree much browsed by camels and the wood is used for well gear. It bears a pink wax-like flower in October and April which is sometimes boiled as a vegetable; the fruit (*dehla*) is also eaten but is certainly unwholesome. It is this tree which is usually adopted as the *Lingri* or *Tikri Pír, i.e.,* Rag Saint, by women who feel themselves demoniacally possessed but are unable to undertake the expensive cure of a visit to a *ziárat.* Among trees growing on wells one meets with the *farásh*, *shísham*, *ber*, *siris*, and *rohira.* The latter (tecoma undulata) is prized for its exceptionally hard wood. The others have been already described in dealing with the Kachhi. It may however be noted that even the *farásh*, elsewhere one of the easiest trees to grow, requires in the Thal at least five years' watering before it can be left to itself.

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Physical aspects.

Fauna of the *tahsil.*

The fish, reptiles, birds and animals which are to be found in the Indus and its vicinity are fully enumerated and described in the Muzaffargarh District Gazetteer and need no further mention; no species are known to be peculiar to Leiah.

In fact the fauna of this whole *tahsil* presents no distinctive features.

In the Kachhi.

In the Kachhi pig are very numerous and hog-deer (*párha*) not uncommon in the riverain jungles.

Fox and jackal are ubiquitous and an occasional wolf is to be found.

Hare are fairly numerous, but owing to the annual inundations of the river they are only to be found in the drier and higher regions: in the Thal they are not common.

Both grey and black partridges are abundant and very fair sport may be obtained in the *lai* and grass jungle round plots of cultivation though it involves a considerable amount of walking. Snipe are rare owing to the absence of suitable cover.

Quails visit the Kachhi in considerable numbers in March and September.

In the Thal.

The Thal is generally speaking destitute of much animal and bird life, but certain members of its fauna are not found elsewhere in the *tahsil.*

Among them may be mentioned the ravine deer or *chinkara*, locally called *haran;* large herds are to be found roaming the country. Black buck however are unknown.

Florican or *talur* and sand grouse—both the imperial and the common small species—are commonly met with, while the lesser bustard is not rare.

The great bustard used to be occasionally seen, in the hot weather only, but it seldom if ever appears to visit the Leiah Thal now.

In dry years when vegetation is even scarcer than usual both birds and beasts exhibit a very natural reluctance from dwelling in this inhospitable tract.

Rainfall.

The average rainfall recorded at Leiah *tahsil* over the series of years 1891-92 to 1914-15 is 8·73, of which 5·73 is received between June and September, 0·35 between October and December, and 2·65 between January and May.

The median figure for the same period—the middle out of the same series arranged in arithmetical order—is 8·94.

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Physical aspects.

Rainfall.

The average and median figures for the period 1866–1883 are both 7 inches.

In four years out of the seventeen from 1866 to 1883 and in two years out of the twenty-four from 1891-92 to 1914-15 the total amount recorded fell below four inches.

The actual Indus valley receives slightly more rain than Leiah itself, perhaps one inch in the year, whereas the Thal generally receives about the same quantity less. In the latter locality the rainfall is usually very unevenly distributed and seems to depend almost entirely on local thunder-storms, without which rain seldom falls.

Climate.

The climate is cold and bracing during the winter months, but in the summer the heat is stifling and oppressive and aggravated by numerous dust-storms. Some relief is afforded by the summer winds blowing up the Indus valley, but their soothing influence does not extend beyond the fringe of the Thal, where the fiery heat is intolerable. Hot winds, known locally as the *lu*, increase the discomfort in the Thal and often completely wither the crops. During the winter the nights and early mornings are bitterly cold, while the sharp frosts will not permit young mango trees to survive in the open unless protected by matting or straw.

Spring level.

The water level in wells varies considerably over the *tahsil*, as one would expect from its physical features. In the Kachhi the spring level is between 8 and 11 feet; in the Thal Jandi it falls to between 16 and 24 feet, while in the Thal Kalan the average depth is 32 feet.

Health of the inhabitaants.

The health of the sub-division is good and there is far less fever than in most other parts of the district. As might be expected fever is far more prevalent in the riverain than in the Thal and more so there in years of copious inundation.

There are hospitals at Leiah and Karor.

Geology.

The geology of the *tahsil* is completely void of interest save for speculation as to the origin of the Thal.

Origin of the thal.

Looking beyond the sub-division, the whole Thal is seen to occupy the entire breadth of the Sind-Sagar Doab, between the Indus on the west and the Jhelum and Chenab rivers on the east, with a general slope from north to south with a subsidiary slope from the joint boundary of the Mianwali and Shahpur districts towards the Jhelum.

An important feature in the contours of this great area is that the Indus flows at a much higher level than the Jhelum. At Kundian the Indus is 50 feet higher than the Jhelum is at

Khushab, so that it would be possible if a canal were taken from almost any point on the Indus to lead the water through the Thal and give a fall into the Jhelum or Chenab.

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Origin of the Thal.

The Thal plateau as a whole lies at a much higher level than the other Doabs of the Punjab and it is difficult to see how else it can have been formed than by the action of the Indus, which undoubtedly at one time flowed much farther to the east. The broad level strips or *pattis* of hard soil which run down the Thal from north to south must have been formed by river action, for it is impossible that the drainage from the small catchment area on the Salt Range can ever have been sufficient to affect the country on so large a scale. These *pattis* are almost certainly the relics of ancient beds of the Indus.

If this hypothesis be correct, almost the whole of the present surface of the Thal must have been deposited by the Indus and left dry when the river changed its course, after which it is no strain on the imagination to perceive how the wind would work it up into dunes and larger sand-hills.

As the silt carried by the Indus is, and probably has been for long ages, very inferior in quality, an explanation is afforded for the general sterility and sandy character of the soil of the Thal as compared with that of the Bars of the Punjab.

Local tradition persistently claims that the Indus used to flow down the Thal at a period which cannot be determined, but it must have been relatively remote from the time when the river left its old bank, still traceable down the edge of the Powah, and in receding gave the Kachhi to the plough.

Earthquakes, cyclones and floods.

Earthquakes, cyclones and destructive floods are unknown.

Section B.—History.

Want of information as to the early history of the country.

Nothing is known of the early history of the Leiah *tahsil*. The Thal if left to a state of nature and without wells would be a desert, and the probability is that in early historic times nearly the whole country was a barren waste. Alexander the Great, according to Arrian, sailed down the Jhelum to its junction with the Indus, while his land forces marched in two bodies on either side of the river. Craterus, who was on the right bank, must have skirted the Sind-Sagar Thal. Alexander seems to have thought nothing of making a fifty miles' march across

CHAP. I-B. History.

Want of information as to the early history of the country.

the Bar, through a country devoid of water to get at some towns on the Ravi; and had there been any inhabited towns of importance on the Thal side, these would certainly have been the subject of a plundering expedition. The absence of all notice of any such expedition affords a presumption that the Thal was then a poorer country than it is now.

Absence of antiquarian remains.

The general absence of ruins and monuments of antiquarian interest would also tend to prove that the district can never have been the site of a rich and populous Government. In the Kachhi tract of course such remains could hardly survive the action of river floods, and at one time the Kachhi tract must have been much wider than it is now. The Thal, however, is admirably suited for the preservation of antiquarian remains, had any such ever existed; the rainfall is small, and the land is entirely beyond the reach of inundation. As a fact the Thal is devoid of any such remains, with the exception of a few tombs, the principal of which, those at Karor and Muhammad Rajan, date from the fifteenth or sixteenth centuries only. They are built of brick, and ornamented with enamelled coloured tiles, after the Multan fashion.

Colonisation from the South by Jats and Biloches.

The political history of the *tahsil* is so interwoven with and dependent on the history of its colonisation by the tribes which at present inhabit it, that it will be well briefly to sketch the latter before we discuss the former. The country has been almost entirely settled by an immigration of Jats and Biloches up the valley of the Indus from the south. Before the fifteenth century the lower portion of the *tahsil* was probably occupied by a few scattered tribes of Jats, depending on their cattle for subsistence. The valley of the Indus was a dense jungle, swarming with pig and hog-deer, and frequented by numerous tigers; while the Thal must have been almost unoccupied

Jat immigration in the 15th century A. D.

All the traditions of the people go to show that an immigration of mixed tribes of Jats (Siyars, Chinahs, Khokhars, &c.) set in about the beginning of the 15th century from the Multan and Bahawalpur direction, and that they gradually passed up the valley of the Indus to the Mianwali *tahsil*, occupying the intervening country. Most of their villages would have been located on the edge of the Thal and a portion of the immigrants probably crossed the river and settled along its right bank.

Biloch immigration, their position rather a military than a cultivating occupation.

After these came the Biloches. They also came from the south, but in large bands under recognized leaders. In the cis-Indus tract they appear to have taken military rather than proprietary possession of the country. They were the ruling caste, and

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served under their Chiefs in the perpetual little wars which were then going on in every direction. It is probable that the Jat immigration continued for some time after the Biloches first came into the country.

Division of the country into *hads*.

However it may have been, all the Kachhi immediately adjoining the Thal bank seems to have been parcelled off to Jat families. Each block was accompanied with a long strip of Thal to the back. These estates are the origin of the present *mauzas*, which are almost all held by Jats. Here and there shares are held by Biloches, but these have mostly been acquired in later times by purchase. In the same way the unoccupied lands towards the river were divided off into blocks, and formed into separate estates; and sometimes, where the *hads* first formed had too much waste land, new *hads* were formed in later times by separation of outlying portions of the old estates. In course of time, as the Biloches settled down in the country, individuals acquired plots of land for wells, but generally in subordination to the *had* proprietors or lords of manors. Here and there a small clan settled down together like the Gurmanis of Bet Dabli, or the Sarganis of Sargani, but this was the exception. Biloches are still tolerably numerous all through the Kachhi, but though they were originally the ruling race, still as regards proprietary rights in the land, they hold a position inferior to that of the Jats and Saiyads, by whom the superior proprietorship of *hads* is generally held. In the Thal the population is nearly entirely Jat.

Distribution of Biloch population and their character.

In the Leiah *tahsil* Biloches in the Pakka circle are as one to five to the Jats; there are very few in the Thal Kalan circle, or in the Thal villages behind Kot Sultan; in the Kot Sultan Kachhi, on the other hand, they are nearly as numerous as the Jats, and in this part of the country their position more resembles what it is in the adjoining trans-Indus tract.

Mixed character of the Jat population.

The Biloches, with the exception of the Kasranis who are settled together in considerable numbers, and a few tribes of minor importance, are much broken up, and have altogether lost their old tribal organisation.

All through the Kachhi the mass of the villages are named after Jat families, who form the bulk of the proprietors. These are generally the descendants of the original founders, and have stuck together. In the Thal there are a large number of villages held in the same way by men of particular families; but in

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Mixed character of the Jat population.

most the population is very mixed, nearly every well being held by a man of a different caste. The Jats are still more broken up than the Biloches, and it is necessary to mention that these Jats have no community of race among themselves. In this *tahsil* Sials, Awans, and a host of petty tribes of miscellaneous origin are all grouped together under the common name of Jat, and the variety of tribal appellations among them is nearly as great as that of surnames among ourselves. Few of these Jat tribes are to be found here in any considerable numbers.

Having thus sketched the gradual colonization of the country by its present inhabitants, we now turn to what is known of its history down to the present time.

Part of the Mughal Empire until 1739 A. D.

The Leiah *tahsil* continued to form part of the Mughal Empire until the invasion of Nadir Shah in A D. 1738, when the country generally was plundered. In 1739 A. D. the country west of the Indus was surrendered by the Emperor to Nadir Shah, and passed after his death to Ahmad Shah Abdali. The armies of Ahmad Shah marched repeatedly through the district, the cis-Indus portion of which was, with the rest of the Punjab, incorporated in A. D. 1756 in the Durani Kingdom. During the greater portion of the reign of Ahmad Shah no regular governors were appointed by the Kabul Government. The country was divided between the Hot and Jaskani Chiefs, and a number of nearly independent border tribes. Occasionally, one of the King's Sirdars marched through the country with an army, collecting in an irregular way and often by force the revenue that might have been assessed on the different *ilaquas;* but little or no attention was paid to the internal administration of the country until quite the close of the reign of Ahmad Shah. Two or three years before his death Ahmad Shah deposed Nusrat Khan, the last of the Hot rulers of Dera; and after this the province of Dera Ismail Khan was governed by Kamr-ud-Din Khan and other Governors appointed direct from Kabul. Some ten years later the descendants of Mahmud Khan, Gujar, who had succeeded the Mirranies in the Government of Dera Ghazi Khan, were similarly displaced; and in A D. 1786 the old Jaskani family of Leiah was driven out by Abdul Nabi, Serai, to whom their territories had been granted by the King in *jagir*. Towards the end of the century the whole of the present district on both sides of the river was consolidated into a single Government, under Nawab Muhammad Khan, Saddozai. Before, however, proceeding further, it will be necessary to enter into detail as to the history of the country under the old Biloch families.

Incorporated into the Durani Kingdom in A. D. 1756.

Displacement of the old ruling families of the tract.

Formation of a single Government under Nawab Muhammad Khan, Saddozai.

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Settlement of the old Biloch Chiefs, who founded Dera Ismail Khan and Dera Ghazi Khan, A. D. 1469.

References to the settlement of the first Biloch Chiefs along the Indus are found in *Ferishta*, and in a Persian manuscript translated by Lieutenant Maclagan. The account given by the latter is that in 874 Hijri (A. D. 1469) Sultan Hussain, son of Kutab-ud-Din, obtained the Government of Multan. He held the forts of Shor and Chuniewat (in Jhang district), and of Kot Karor (Karor Lal Isan) and Dinkot (near Kalabagh). Soon after, Malik Suhrab, a Dodai Biloch, along with his son, Ismail Khan, and Fateh Khan and others of his tribe arrived from Kech Mekran, and entered the service of Sultan Husain. As the hill robbers were then becoming very troublesome in the province of Multan, Sultan Husain rejoiced in the opportune arrival of Malik Suhrab, and assigned to him the country from the fort of Karor to Dinkot. "On this becoming known, many Biloches came from Kech Mekran to the service of Sultan. The lands, cultivated and waste, along the banks of the Indus were assigned to the Biloches, and the royal revenue began to increase. The old inhabitants of Dera Ghazi Khan and Multan relate that after Suhrab's arrival, Haji Khan, with his son Ghazi Khan and many of their kindred and tribe, came from Kech Mekran to enter the service of Sultan. When the tracts along the Indus were in the hands of Malik Suhrab and Haji Khan, Malik Suhrab founded a Dera named after Ismail Khan, and Haji Khan another, with the name of Ghazi Khan." This account is confirmed, though in less detail, by the historian *Ferishta*.

Submission of these Biloch Chiefs to the Emperor Sher Shah, A. D. 1540.

We next hear of these Chiefs in A. D. 1540 In that year the Emperor Sher Shah visited Khushab and Bhera in the Shahpur district, and made arrangements for bringing into submission the south-western portions of the Punjab. Among other Chiefs, who then appeared and tendered their submission were Ismail Khan, Ghazi Khan, and Fateh Khan, Dodai Biloches. These were probably descendants of the men mentioned in the former reference, it being the custom in these families to have a common name by which the ruling Chief for the time being was always known. Thus the Hot Chiefs of Dera Ismail were always called Ismail Khans, while the Mirranis of Dera Ghazi were called Ghazi Khans and Haji Khans. The Biloches are spoken of in the accounts of that time as a barbarous and daring tribe, that had long been settled in great numbers in the lower Punjab. Mr. Fryer in his Settlement Report of the Dera Ghazi Khan District mentions that the first Ghazi Khan is proved by the date on his tomb to have died in A. D 1494. This would agree with the date in the manuscript quoted above, and would fix the latter half of the fifteenth century as the period when the main Biloch immigration took place. It would also allow sufficient time for

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Submission of these Biloch Chiefs to the Emperor Sher Shah, A. D. 1540.

the Biloch headmen to have become recognised Chiefs of the country by the time of Sher Shah's visit to Khushab in A. D. 1540. The history of these Biloch settlements is involved in a good deal of doubt and confusion, caused in a great measure by the common custom of the local historians of assigning the founding of the principal towns and villages to the Chiefs of the early settlers or their sons, from whom they are supposed to be named.

Main facts to be gathered from the early histories.

The main facts established appear to be that the early settlers were grouped under two leading families, the Ismail Khans and Ghazi Khans. Both of these were probably of one stock, *viz.*, Dodai Biloches; but this name Dodai disappears altogether, and in the local history Ghazi Khan's tribe are known as Mirrani Biloches, and Ismail Khan's as Hot Biloches. The Dodais are, according to the Biloches, a mixed tribe of Jat origin belonging to the Satha-Surma clan, now represented by the Surma of Leiah ; Doda their founder married a Biloch wife. This tribe owned Dera Ghazi Khan before the Biloch irruption, and retained it, being assimilated by the Biloches. The Mirranis of Dera Ghazi Khan were Dodais; the Hots on the contrary were Biloches of pure blood. The Hots according to Biloch tradition are one of the five main branches into which the Biloches originally divided, *i.e.*, Rind, Lashari, Hot, Korai and Jatoi, who took their names from the four sons and the daughter of Mir Jalalan, the common ancestor. They could scarcely therefore be a branch of the Dodai. The Governor of Multan seems to have assigned to these two families the land along the Indus, including both banks from its junction with the Chenab upwards. They first established themselves on the right bank, but by degrees threw out parties who took possession of the eastern bank as well. Very little is known about these Hot Chiefs. They ruled continuously at Dera Ismail Khan from their first settlement till about A. D. 1770, when the last of them, Nusrat Khan, was deposed by King Ahmad Shah, and taken as a prisoner to Kabul. In 1794 A. D the Government of the Province was transferred to Muhammad Khan, Saddozai. The Hots now disappear from history.

Last Hot Chief Nusrat Khan displaced in A.D. 1770 by Ahmad Shah.

Rule of the Mirrani Chiefs in Leiah.

The lands of the Leiah *tahsil*, along the southern boundary of the old Dera Ghazi Khan district, appear to have been included in that section of the Indus valley which had been assigned to the Mirranis. These are said to have founded Kot Adu, Kot Sultan, Leiah and Naushera. Beyond Naushera the country probably at first belonged by the terms of the original assignment to the Hots. The towns above mentioned are said to have been founded about 1550 A. D. by the four sons of the Ghazi

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Rule of the Mirrani Chiefs in Leiah.

Khans. The eldest of these Kamal Khan, the founder of Leiah, is said to have held a sort of supremacy over his brothers. It appears, however, that the Mirranis never held Leiah as an independent Government. The Ghazi Khans held the Leiah province as part of the Ghazi territory, much as the Hots of Dera held Darya Khan, neither of them having their head-quarters in the Cis-Indus *tahsils*. It was under these circumstances that the Jaskanis rose to power. Mir Chakar was a leading man among the earliest of the Biloch settlers of the Leiah province. One of his descendants, Daud Khan, established himself as a robber Chief in the jungles between Karor and Leiah, with head-quarters at Wara Gish Kauri He collected a large number of followers, and at the head of 500 horse he defied both the Mirranis of Dera Ghazi Khan and the Hots of Dera, on whose borders he was established. This was during the reign of Akbar, in the latter half of the 16th century. Eventually the Emperor Akbar sent a force against him, and he was killed and his band broken up. The tribe seem, however, to have again gathered together, and in the beginning of the 17th century Biloch Khan, their Chief, received from the Emperor a grant of the country from Mahmud Kot in Muzaffargarh to Khola in Mianwali. The Jaskanis do not appear, however, to have succeeded in getting possession of the portion of the tract granted lying to the north of Darya Khan. This was held by the Hots of Dera till the end of the 18th century. Probably the Jaskanis got nothing more than what they already possessed in fact, though perhaps in nominal subordination to the Hots and Mirranis. Henceforth they were independent, and the Mirranis lost their hold on the Leiah province altogether. The Mirranis are said to have been finally ousted from Leiah about A. D. 1620. The leading Biloch tribes of the Bhakkar and Leiah *tahsils* all claim descent from Biloch Khan. They are the Jaskanis, Mandranis, Mamdanis, Kandanis, Sardanis and Malianis. Biloch Khan was succeeded by Jasak Khan, Bhakkar Khan, Langar Khan and other Chiefs of his family, whose deeds are much exaggerated by local tradition. At the beginning of the 17th century the Jaskanis ruled over Bhakkar and Leiah, and across the Thal to the Chenab side. They seem to have been more or less at war with the Sials of Ooch and also came occasionally into contact with the Sikhs who were then becoming a power in the Punjab. Biloch Khan the Blind, one of the most famous of these Jaskanis, is said to have been killed in A.D. 1746 in a fight with Jhanda Singh and Ganda Singh, the Sikh leaders. It is probable that the real date of this event was somewhat later, and that this is probably

Rise of the Jaskanis in the latter half of 16th century.

Leading Jaskani clans.

Extent of the Jaskani territory.

Under Biloch Khan the Blind they come into conflict with the Sikhs.

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Under Biloch Khan the Blind they come into conflict with the Sikhs.

the same Jhanda Singh who took Multan in A. D. 1772. In Cunningham's History of the Sikhs it is mentioned that from 1772 A. D. to the retaking of Multan by the Kabul King, the Bhangi Sikhs were predominant in all the Southern Punjab, and that "they seem to have possessed Mankra as well as Multan, and to have levied exactions from Kalabagh downwards." Local tradition is against Mankera having been occupied by the Sikhs before its final capture by Ranjit Singh, and any expedition made by them in this direction can have been little more than a transitory raid. The history of these times is wrapped in much obscurity, and the accounts being based only on tradition are often contradictory.

Fatteh Khan, Jaskani, A D. 1743-70

Fatteh Khan suceeded his father, Biloch Khan the Blind. Towards the end of his rule, Nusrat Khan, Hot, of Dera Ismail Khan, crossed over to Bhakkar, and defeated Fatteh Khan's son, also named Nusrat, whom he took prisoner with him to Dera. Hasan Khan, Laskrani, who was Wazir to Fatteh Khan, was ordered on this to attack Dera, but he made excuses; and an attempt of Nusrat Jaskani's mother to obtain his release led to her attempted violation by Nusrat Khan, Hot. Nusrat, Jaskani, was after this released, but both he and his father Fatteh Khan poisoned themselves through shame at the disgrace. The whole affair was a great scandal; and as Nusrat Khan Hot bore a bad character as a tyrant and winebibber, the King, Ahmad Shah, who was desirous of tightening his hold over these semi-independent provinces, took advantage of the excuse to deprive him of his government and to remove him as a prisoner to Kabul.

Wazir Hasan Khan, Laskrani, A. D. 1770-79.

Meanwhile Hassan Khan, Laskrani, ruled the cis-Indus country in the name of Haiyat Khan, the grandson of the former Chief, Fatteh Khan. Being desirous however to keep the government in his own hands, he continued to keep Haiyat Khan under close surveillance in the fort of Mankera, even after the latter had attained his majority. Haiyat Khan eventually managed to escape, and getting together a party he defeated Hassan Khan, and took him prisoner. Hassan Khan was soon afterwards murdered by some of Haiyat Khan's attendants, who were opposed to him. The government of the Jaskanis, however, was now fast breaking up. The Sarganis, who were then a strong tribe and had been much pampered by Haiyat Khan, took offence at an expedition fitted out by Haiyat Khan against one Gul Muhammad of Ooch, a holy individual who had been trying to establish his independence in the Chenab country.

Haiyat Khan, Jaskani, A. D. 1779-87.

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Muhammad Khan, Jaskan A. D. 1787-89.

They accordingly attacked him treacherously and murdered him in his fort of Mankera in A. D. 1787. After this the Sarganis, under their chief, Gula Khan, held out for some time against Muhammad Khan, the brother and successor of the deceased Haiyat Khan. They were eventually defeated by the Jaskani party under the leadership of Diwan Ladda Ram, and their chief Gula Khan having been killed in this action, the Sarganis came to terms with Muhammad Khan, and were bought off with the Munda Shergarh country, which was granted to them in *jágír*.

Contemporary history of Dera Ghazi Khan.

Conflict between the Durani monarch and the Kalhoras of Sindh.

We must now return to the affairs of Dera Ghazi Khan, whose Chief had always exercised a good deal of influence, if not of authority, over the Leiah portion of the Jaskani dominions. The notices of the Dera Ghazi history are mostly fragmentary and conflicting. It appears that all through the reign of Ahmad Shah, Abdali (A. D. 1747-73) the old Mirrani family was being gradually crushed out in the conflict between the Durani King and the Kalhoras of Sindh; and during the whole of this time Mahmud Khan, Gujar, Wazir under the last of the Ghazi Khans, was playing a double game for his own hand, sometimes on one side, sometimes on the other. When the country west of the Indus was ceded to Nadir Shah in A. D. 1739, he confirmed Wazir Mahmud Khan as Governor; and Mahmud Khan seems also to have been continued by Ahmad Shah, when he passed through Dera Ghazi Khan in A. D 1748. All this time however the Kalhora rulers of Sindh claimed the sovereignty of the country; and though Sindh itself was nominally a portion of the territory ceded to Kabul by the Emperor of Delhi, still the hold of the Kabul King, even over Dera Ghazi Khan, was weak and intermittent, and no revenue could be obtained from Sindh without hard fighting. The Kalhora princes at this time were Nur Muhammad, generally called Nur Muhammad, Serai, and after his death his son Ghulam Shah. This is the Nur Muhammad who fought with the Hots of Dera Ismail Khan, and is said by Captain Mackenzie to have governed Leiah and the Sindh-Sagar Doab to the Chenab. Captain Mackenzie writes that he pushed back the Jaskanis, and took possession as far as Darya Khan, but this does not agree with what seems to be the correct account. The Jaskanis continued to hold Leiah till 1787 A. D., while Darya Khan was never held by them at all. It is quite possible, however, that the Jaskani Chiefs may, for a time prior to the invasion of Nadir Shah, have admitted the supremacy of the Kalhoras, who were then practically independent princes of a large and wealthy province, and might well have extended their authority over the

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smaller Chiefs to the north. At Dera Ghazi Khan the last Chiefs of the Mirrani line and Mahmud Khan Gujar, who though titularly their Wazir, appears really to have been more powerful than his nominal masters, also held their Government in subordination to the Kalhoras; and though the rule of the latter, after Ahmad Shah's accession, was rather intermittent, still they do not appear to have given up their claim to Dera Ghazi Khan till they were themselves driven out of Sindh. In 1758 A. D. the King sent a force under Kaura Mal, by whom the Sindh party was defeated in a fight near the town of Dera Ghazi. The Mirranis at this time were split up into rival factions who took opposite sides, and many of them after this event migrated to the neighbourhood of Leiah, where they are still found in considerable numbers. This Kaura Mal was afterwards Governor of Multan, and exercised a sort of authority under the King both over the Mirranis of Dera Ghazi and over the Jaskanis of Leiah.

Mirranis driven out of Dera Ghazi Khan, A. D. 1758.

In A. D. 1769, Ghulam Shah, Kalhora, again attacked Dera Ghazi, and finally drove out the Mirranis. He put in Mahmud Khan, Gujar, as Governor, and Mahmud was succeeded by his nephew Barkhurdar, who was killed in A. D. 1779, when the province was put under Governors appointed direct from Kabul. Neither Mahmud Khan, Gujar, nor Barkhurdar exercised any authority over Leiah and the cis-Indus country. They were purely Governors of Dera Ghazi Khan. Ghulam Shah took Dera Ghazi in A. D. 1769; but in A. D. 1772 the Kalhoras were themselves driven out of Sindh by the Talpurs. This threw them entirely into the hands of the Kabul King, and they retired with their following to the Dera Ghazi Khan district, where they were granted considerable *jágirs;* henceforth they are known as Serais instead of by their old name of Kalhoras. The Serais, finding themselves stranded at Dera Ghazi Khan with a large armed following, now commenced to look about for some territory in which to found a new principality. The Jaskani country, torn by internal faction, and attached by old tradition to the province of Dera Ghazi Khan, was close at hand, and in every way suited for the purpose. Armed therefore with a *sanad* from Timur Shah, Abdul Nabi, Serai, brother of Ghulam Shah, entered into a league with the turbulent Sarganis and in 1789 marched against Leiah. Muhammad Khan, Jaskani was defeated, and fled to the Tiwana country and thence to Bahawalpur. The Nawab of Bahawalpur would probably have assisted him to recover his country, but Muhammad Khan with the pride of a Biloch insultingly refused to give the Nawab a valuable work on hawking for which he had asked, and ended his days as a dependant on

Mahmud Khan appointed Governor and succeeded by his nephew.

The Kalhoras driven out of Sindh, A. D. 1772.

Henceforth known as Serais.

Under Abdul Nabi the Serais drove the Jaskanis out of Leiah. Extinction of the Jaskanis as a ruling family, A. D. 1789.

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Hasad Khan, the Nutkani Chief of Sagar. The present representatives of the Jaskani family are mentioned in the notes on leading families at the end of Section C of this chapter. Thus ended the line of the Jaskani Chiefs after a rule of more than 200 years. Abdul Nabi, Serai, held the Leiah Government only for three years. Complaints were made to the king of his tyrannical rule while an appointment was wanted for Muhammad Khan, Saddozai. The latter was cousin to Muzaffar Khan, Nawab of Multan, for whom he had for some time acted as Governor of Multan, to the satisfaction of the King. A *sanad* therefore was soon drawn out, appointing Muhammad Khan, Nawab and Governor of the Sindh-Sagar Doab from Kallur Kot to Mahmud Kot and from Indus to the Chenab. Muhammad Khan had still to take possession, which was not to be done without fighting. He was met by Abdul Nabi near Leiah, and in the battle that ensued the Serais had at first the advantage and the Nawab's people fled. Nawab Muhammad Khan himself was ready to fly, saying, "What can a king do without an army?" but was stopped by his *jemadár*, who said, "Better die than fly." Eventually he rallied a part of his forces, and meanwhile some Labanas crept up through a *bhang* field and, attacking the Serais from behind, killed Muhammad Arif, the son of Abdul Nabi, who had been the soul of the fight, and the Serais being disheartened gave in. The Serais were allowed a day to remove their property and departed by boat to their own country to the south.*

Abdul Nabi, Serai held Leiah until A. D. 1792.

Appointment of Muhammad Khan, Saddozai, as Governor, A. D. 1792.

He fought Abdul Nabi, Serai, near Leiah.

Defeat of Abdul Nabi

Meanwhile Timur Shah had died in A. D. 1793. He was succeeded by Zaman Shah, whose title was however disputed by prince Humayun. In A. D. 1794, Humayun made his second attempt to recover the kingdom from Shah Zaman, but was defeated and fled to Sagar, where Massu Khan, Nutkani, Chief of Sagar, assisted him and managed to smuggle him across the Dera Fatteh Khan ferry. He got to Leiah, and stopped at a well, where curiosity was excited by his paying an *ashrafi* piece for a few sticks of sugarcane that he had taken. The news came to the ears of Nawab Muhammad Khan, who happened to be at Leiah at the time. The Nawab suspected that it must be the prince Humayun, for whose capture strict orders, with promises

Prince Humayun defeated by Zaman Shah escaped to Leiah, A. D. 1794.

Nawab Muhammad Khan captured the prince, and rewarded with the Governorship of Dera Ismail Khan.

* Mr. Tucker, from whose Settlement Report this account is taken, writes: "I have gone more into detail with regard to the contemporary history of the Dera Ghazi Khan District than would otherwise have been necessary, because Captain Mackenzie, in his Settlement Report of the Leiah and Bhakkar *tahsils*, gives his opinion that Ghulam Shah actually ruled in the Leiah country at a period antecedent to the ascendancy of the Jaskanis, and questions the correctness of the Dera Ghazi Khan histories on which my own account was based. All the intelligent natives, however, that I have questioned, deny that the Serais twice ruled the country—once before and once after the Jaskani dynasty, as suggested by Captain Mackenzie."

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Nawab Muhammad Khan captured the prince, and rewarded with the Governorship of Dera Ismail Khan.

of untold rewards, had been issued by Zaman Shah. He accordingly collected some horsemen and pursued Humayun whom he overtook at a well in the Thal, some fifteen miles from Leiah. Humayun had some 20 or 30 horsemen with him, who in desperation made a good fight. Humayun's young son was killed, and Humayun himself was taken prisoner and brought into Leiah. The Nawab at once reported the capture of Humayun to the King Zaman Shah, who sent orders that Humayun's eyes should be put out and his companions disembowelled. He also conferred on the Nawab the name of Sarbiland Khan, and the Government of Dera Ismail Khan, in addition to that which he already held. The orders of the King were carried out at Leiah. Among Humayun's attendants who suffered was a brother of Fatteh Khan, Barakzai. Humayun himself passed the rest of his life in confinement.

Death of Nawab Muhammad Khan, A. D. 1815.

The province of Dera, of which Muhammad Khan now became Governor, extended from the Khasor range to the Sagar country, ruled over by the Natkani Chief. Nawab Muhammad Khan had his head-quarters at Mankera and Bhakkar, and governed Dera by Deputy. In A. D. 1815 he died. He left no son, and was succeeded by his son-in-law, Hafiz Ahmad Khan.

His son-in-law Nawab Hafiz Ahmad Khan succeeds him and comes into conflict with the Sikhs.

Muhammad Khan was undoubtedly a man of great character, and during his lifetime the Sikhs abstained from attacking the Leiah territories. Immediately on his death a demand for tribute was made on his successor, Hafiz Ahmad Khan. On his refusal, his forts of Khangarh and Mahmud Kot were occupied by the Sikhs, and great atrocities were perpetrated on the Muhammadan population of the neighbourhood, until Hafiz Ahmad Khan procured the withdrawal of the Sikh garrisons by the payment of a large sum of money and thus recovered his forts, with part also of the plunder extorted. After this the Sikh Government continued to press the Nawab with all kinds of extortionate demands. Among other things Ranjit Singh was especially fond of seizing any valuable horses he might hear of, and made the Nawab yield up some of his special favourites. In A. D 1818 Multan, in spite of the gallant resistance offered by Nawab Muzaffar Khan, had been taken by the Sikhs. Nawab Hafiz Ahmad Khan had not dared to assist his brother Nawab and kinsman in the struggle, but his own turn was soon to come. In the autumn of 1821, Ranjit Singh, disengaged from more serious matters, determined to reduce him. He accordingly marched with an army through Shahpur to a point on the Indus opposite Dera Ismail Khan. He sent a force of 3,000 men across the

Multan captured by the Sikhs in A. D. 1818.

Ranjit Singh besieged and took Mankera, 1821.

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Ranjit Singh besieged and took Mankera. 1821.

river, and on this the town was surrendered by the Governor Diwan Manik Rai. Bhakkar, Leiah, Khangarh and Maujgarh were all successively reduced without resistance. Mankera, fortified by a mud wall and having a citadel of brick, but protected more by its position in the midst of a desert, was now the only stronghold remaining and a division was advanced for its investment on the 18th November. Sardar Khan, Badozai, a bold impetuous man, recommended the Nawab to march out at once and attack the Sikhs. "To fight in the plain" said he "is the business of a lion, to hide in a hole that of a fox." The Nawab, however, was not to be persuaded, and preferred to stand a siege. The Sikhs now set *beldárs* to dig *kacha* wells for the use of the troops, and in the meantime water had to be brought on camels and bullocks from Maujgarh. The wells were ready by 25th November and Ranjit Singh then moved to Mankera with his main force, and on the 26th November the investment was completed. The bombardment of the place was continued for ten days after this, but not without loss to the besiegers. At last one of the minarets of the fort mosque having been broken by the Sikh fire, the Nawab, looking on this as an unlucky omen and thinking that enough had been done for honour, proposed terms and agreed to surrender the fort on condition of being allowed to march out with his arms and property, and to retain the town and province of Dera, with a suitable *jágír*. Ranjit Singh granted the terms and the place was surrendered accordingly. The Nawab was treated with great civility and was sent with an escort to Dera. Ranjit Singh now annexed the cis-Indus *tahsils*. The cis-Indus tract was governed partly by Sikh *kárdárs* and partly by the agents of various *jágírdárs* to whom large portions of it had been assigned.

Leiah annexed by the Sikhs.

Eventually in A. D. 1837, the whole of the cis-Indus country as far as Mianwali was made over to Diwan Sawan Mal, the Sikh Governor of Multan, in whose name it was successively governed by his son Karm Narayan, and his grandson Wazir Chand. Sawan Mal was a wise and able Governor, far famed for the excellence of his revenue administration and for his general encouragement of agriculture. His name is still a household word in the cis-Indus *tahsils*. He died in A. D. 1845, and was succeeded by his son Mul Raj. Shortly after this the second Sikh War broke out, and was followed by the annexation of the whole country by the British Government It must not be imagined that under the Sikhs the whole cis-Indus territory formed one compact government. A great portion of it was held in *jágír*; each *jágírdár* possessing judicial and executive authority within the

In 1837 Leiah came under Diwan Sawan Mal, Governor of Multan.

He died in 1845.

Jágirs under the Sikh rule.

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History.

Jágírs under the Sikh rule.

limits of his *jágír*, and being quite independent of the *kárdár* to whom the *khalsa* portion of the district happened to be leased. These *jágírdárs* were almost invariably non-residents, and put in agents, known as *hákims* to manage their estates. These *hákims* were more or less in the habit of raiding on one another and lifting cattle; and the country until the time of Sawan Mal was generally in a disturbed state. These *jágírs* were mostly in the Thal. The whole of the cis-Indus *jágírs* granted by the Sikh Government, with the exception of one or two small villages, have now been resumed.

The Multan war, 1848.

In April 1848, Sir H. Edwardes, then Assistant to the Resident at Lahore, heard of the news of the outbreak at Multan and the murder of Vans Agnew. He was then at Dera Fatteh Khan. He immediately crossed the river to Leiah, but retreated on the advance of a force sent by Diwan Mulraj. The next month passed in movements and counter-movements in the neighbourhood of Leiah. Meanwhile Edwardes had collected a mixed force made up mainly of Multani Pathans and of men of the Pandapur, Ustrana and other border tribes. On 21st May he heard of the occupation of Dera Ghazi Khan by a force that he had sent down the right bank of the Indus under Van Cortlandt. He then proceeded to move towards Multan. On his march he fought the battles of Kaneri and Sadduzam, in which his rough levies behaved with great gallantry. These same forces took part in the siege of Multan, under General Whish. On the taking of Multan, 22nd January 1849, the greater number were discharged and returned to their homes; two thousand however of Edwardes' levies were retained in Government employ, and the leading Sirdars all received handsome pensions from our Government. On 29th March 1849 the Punjab was annexed, and the territories forming the present district, which were for the most part already under the control of British officers, became formally a portion of the British Empire. In the organisation of the province which immediately followed, the district of Leiah was formed and placed under the charge of Captain Hollings as Deputy Commissioner. British authority was peaceably established and Captain Hollings proceeded to effect a revenue Settlement of Bhakkar and Leiah. The subsequent history of the district is uneventful.

On 29th March 1849 the Punjab was annexed by the British Government.

Formation of the Leiah District.

Events during the Mutiny.

In 1857 the Leiah district remained very tranquil. Only one or two slight punishments were inflicted for offences connected with mutiny. Much anxiety was caused at one time by the arrival of a wing of the 17th Irregular Cavalry under Captain Hockin, but it remained firm. When the Kharral insurrection broke out in September, Captain Hockin marched against the

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History.

Events during the Mutiny.

rebels leaving at Leiah 40 of his men who had fallen under suspicion. The day before he marched news reached Leiah that the whole of the 9th Irregular Cavalry had mutinied at Mianwali. Captain Fendall says :—"I certainly at first thought it was a deep-laid scheme for raising the whole country, that the 9th Irregular Cavalry were to appear before Dera Ismail Khan, be joined by the 39th Native Infantry, come on to Leiah, pick up the wing of the 17th Light Cavalry, go towards Gugera, coalescing with the tribes and march on to Multan (where there were two suspected regiments of Native Infantry). It was feasible, and would have temporarily lost us the lower Punjab." But this dreaded junction did not take place. The news proved to be an exaggeration. The mutineers of the 9th Irregular Cavalry, who, strange to say, were all men of the *cis*-Sutlej States, were only 30 in number, and were entirely destroyed in a desperate fight, in which Mr. Thomson, the Extra Assistant of Leiah, was very dangerously wounded. His gallant conduct in this most spirited little battle was conspicuous.

Leiah district broken up in 1861 and Leiah *tahsil* transferred to Dera Ismail Khan district.

Before annexation the *cis*-Indus tract was included in the Government of Diwan Sawan Mal. At the first arrangements of district, the *trans*-Indus *tahsils* of the old Dera Ismail Khan and Bannu districts were formed into the Dera Ismail Khan district with head-quarters at Bannu. The *cis*-Indus *tahsils*, that is Mianwali, Bhakkar and Leiah and till 1859 the Kot Adu *tahsil* of Muzaffargarh, formed the Leiah district with head-quarters at Leiah. This arrangement, though in many respects more convenient than the later one, was set aside in 1861, as the charge of so long a border was considered too heavy for the Deputy Commissioner of Dera Ismail Khan. The northern portions of the two districts were then formed into the Bannu district; the southern into the Dera Ismail Khan district. The original division was longitudinal, the Indus being the boundary; the new division was transverse, sections of the country on both sides of the Indus being included in each district.

Head-quarters of the Commissioner moved from Leiah.

Constitution of the new Leiah *tahsil*.

The new Dera Ismail Khan District consisted of five *tahsils*. Of these Dera Ismail Khan, Kulachi and Tank were *trans*-Indus, and Leiah and Bhakkar *cis*-Indus. On the breaking up of the old Leiah district on January 1st, 1861, the head-quarters of the Commissionership were transferred from Leiah to Dera Ismail Khan, which from being an outstation became the capital town of the division. The new Leiah *tahsil* included the southern part of the old Mankera *tahsil* broken up in 1853-54, when the Chaubara, Nawankot and Maujgarh *talukas* were transferred to Leiah; the village of Paharpur was transferred from the Kot Adu

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Population.

Constitution of the new Leiah *tahsil*.

tahsil in 1861, and a strip of riverside villages were transferred from the Sanghar *tahsil* in 1869. In 1874 Sukhani and six other villages were transferred from the Sanghar *tahsil* of Dera Ghazi Khan to Leiah.

Commissioners of Leiah.

Colonel Ross was the first Commissioner of the Leiah Division and held the appointment from 1850 until his death in September 1857; his tomb is in the Leiah cemetery. Major Pollock, Deputy Commissioner of Dera Ghazi Khan, then officiated for a few months, and was followed by Major Brown, who remained till 1860.

Deputy Commissioners of Leiah.

The old Leiah district was held by the following Deputy Commissioners:—

Captain Hollings	1849—1852
Mr. Simson	1852—1856
Captain McNeile	1856
Captain Bacon	1856—1857
Captain Fendal	1857—1859
Captain Parsons	1859—1860
Lieutenant Smyly	1860

In 1901 Leiah was transferred to the new Mianwali district.

On the separation of the North-West Frontier Province from the Punjab a further reconstitution took place, and on 9th November 1901 the Mianwali district was formed out of the four *tahsils* of Isa Khel, Mianwali, Bhakkar and Leiah, the two former being taken from Bannu, and the two latter from Dera Ismail Khan. The head-quarters were fixed at Mianwali, the Bhakkar and Leiah *tahsils* forming a sub-division with head-quarters at Bhakkar and the district was included in the Multan division.

In 1909 Leiah was transferred to Muzaffargarh district.

On 1st April 1909 the Leiah *tahsil* was transferred to the Muzaffargarh district and became its sub-division.

Section C.—Population.

The statistical tables in Part B of this volume and also in Part B of the Muzaffargarh District Gazetteer give full information about the population of this *tahsil*, its density, migration, principal tribes and castes, religions and literacy.

The people of the rest of the district, their customs and modes of life, have been fully described in the District Gazetteer, and this *tahsil* does not present any distinctive features in this connection.

The bulk of the people are Muhammadans, 91 per cent. of the whole, and in race the population is mainly Jat, with a sprinkling of Biloches, while Sayads own a few villages here and there. Hindus exist in almost every village and in the Thal own considerable landed property, no doubt in intelligent anticipation of the advent of the Sind-Sagar Canal. CHAP. I-C. Population Bulk of population Muhammadan and mainly Jat.

As elsewhere in the district Jats include that congeries of Muhammadan tribes which are not Sayads, Biloches, Pathans or Qureshis, and the Jat tribes and sub-divisions are almost countless. The Biloches differ little from the Jats with whom they have freely intermarried, and the two are not infrequently hard to distinguish. Jat tribes and sub-divisions are very numerous

At the most recent Census—1911—the total population was 128,591, giving a density of 53 persons per square mile; of this number 111,268 were Muhammadans, 15,425 Hindus and 1,896 Sikhs. Census returns of 1911.

The urban population was only 11,676 as against a rural population of 116,915; the urban population was composed of 5,225 Hindus, 6,168 Muhammadans and 279 Sikhs.

A comparison with previous Census returns shows a steady increase:— Previous census figures.

Year of census	Total population.
1855	80,149
1868	94,937
1881	102,612
1891	112,819
1901	122,278
1911	128,591

The Hindu population has kept fairly constant, whereas the Muhammadan community has increased steadily.

Literacy.

In literacy the people are exceedingly backward, the 1911 returns showing only 4,543 males and 190 females as able to read and write; the percentage of literates to the whole population was thus only 3·6.

Mr. Hailey's excellent description of life in the Thal is worth quoting in full— Conditions of life Thal.

"Less strictly pastoral than the inhabitants of the Mianwali Thal to the north, the well owners of the Leiah Thal Kalan are only half agricultural, for they keep large numbers of stock, not only to provide the all necessary manure, but as a means of subsistence.

CHAP. I-C.

Population

Prevailing note is poverty.

The inhabitants of the Jandi Thal are for the most part agricultural but the necessity for obtaining manure obliges them also to maintain a number of stock.

The prevailing note among the Thal people is their poverty—a poverty not only of resources but also of enterprise and intelligence. A continual struggle with Nature in her most niggard and capricious mood leaves them too exhausted for any other effort. They will not enlist nor take any kind of service and admit their lack of enterprise with the excuse that they are 'camel hearted.' There is indeed much truth in the comparison, for they have to undertake an immense amount of the dullest kind of labour on the poorest of diets and for the meanest of rewards. The Thal well-owner displays an industry far greater than his neighbour in the Kachhi, but the cost of his oxen, the scantiness of the rainfall and the severity of the climate ensure him far poorer results.

Food.

He eats but little wheat or barley; for part of the year he and his family live on turnips and melons and for the rest the supply of grain is eked out by the wild fruits of the *jal*, the *jand* and the *ber*.

The shepherd and the camel grazier ask and enjoy still less; they live almost entirely on the milk of their sheep, goats and camels, aided by such grain as they can earn by work at harvest time in the Kachhi.

They eat a good deal of meat however, for besides the food afforded by an institution resembling a mutton club they never hesitate to use the knife on a animal dying of disease, be it bullock, goat or even—horresco referens—camel.

Good health.

Arduous as the lives of these people must be, the poverty of the Thal carries some compensation in the health enjoyed by its inhabitants, and the age of their men and the strength of their women are a bye-word in the district. Indeed it is the poverty of poor living only, for there is never any actual famine and in the worst of times temporary migration is no real hardship to a half nomadic people. But they always hark back to the Thal, for their primitive instincts are not yet trained to a civilisation which is embellished by the *tahsil chaprasi* and the Munsiff's Court.

Morality.

As for morality they have a reputation above that of their neighbours and the Thal is distinguished above the other Bars by the Punjabi proverb, *Sindh sadikan da, Chenab choran da, Ravi markiton da*. Perhaps their abstinence from theft is due to accident rather than choice, for the sandy soil of the Thal points the tracks of the larger animals with a definiteness that makes theft unprofitable. It is certain, however, that their moral sense stops short at sheep and goats, which they look on in much the same light as the English farmer would regard his neighbour's partridges—fair game if they come his way."

Language of the sub-division.

The prevailing language is Jatki, while Bilochi is nowhere spoken nor understood. The dialect of the Thal differs somewhat but not to a material extent from that of the Indus valley.

Absence of large villages.

As in the rest of the district there are very few villages as that word is understood in other parts of the Punjab—and the population is contained in hamlets and even detached homesteads scattered over the face of the country.

CHAP. I-C. Population. Fairs.

The only important fair in the sub-division is that held at Karor in honour of the local saint Lal Isan, whose shrine is described in Chapter IV. The fair is held annually in August and though drawn out to about twenty days the main festival lasts for about eight. On the average some 25,000 people attend. The local municipal committee used to make all necessary arrangements, but since 1908 the district board have taken over the fair. The expenses incurred amount to some Rs. 550 which is defrayed partly by a tax on shop-keepers, partly by a municipal grant of Rs. 50 and partly from district board funds. The road leading to the shrine was paved in the time of Major Macaulay, Deputy Commissioner, Dera Ismail Khan (1871-74), and a double line of shops built which are only used during the fair.

General health of the country.

The *tahsil* is distinctly healthy and in this respect is more favoured than the rest of the district. Plague is practically unknown and no doubt the people owe their immunity to the manner in which their dwellings are dispersed in small hamlets over the country.

Distinguished families and individuals of note—(*i*) The Jaskanis of Basti Shadu Khan.

The most noteworthy family in the sub-division is that of the Jaskanis of Basti Shadu Khan. The history of the Jaskani rulers of Leiah has been sketched in Chapter I-B. The direct descendants of Fatteh Khan and of his grandson Muhammad Khan, who was the last independent Jaskani chieftain, do not live in this *tahsil*. Two other branches have however descended from Durgai Khan, the second son of Biloch Khan the Blind. Durgai Khan left two sons Shadu Khan and Haiyat Khan. The descendants of the latter are still in existence in this *tahsil*, being settled at Khokhar Israi.

The descendants of the former son are at Basti Shadu Khan and the present head of this line is Khan Shadu Muhammad Khan, a senior *darbári* of the district and an Honorary Magistrate. His great uncle Lashkar Ali Khan served under Sir H. Edwardes during the Multan campaign, while his father Muhammad Raza Khan served during the Mutiny as a *jemadár* of levies at Bannu.

With the inherent pride of a Biloch, Shadu Khan disdains to beg for favours and leads a somewhat unostentatious life in his ancestral village, respected far and wide and a staunch supporter of the administration.

(*ii*) The Laskranis of Jhok Hassan Khan.

Another interesting family connected with the Jaskani rule is to be found at the village of Jhok Hassan Khan: its members are the descendants of Hassan Khan Laskrani, the ambitious Wazir of Fatteh Khan, who for a time supplanted his nominal master.

CHAP. I-C.

Population.

(iii) The Popalzai of Docharkha.

The Popalzai Pathans of Docharkha came into this district from Kabul towards the end of the 18th century. The head of the family was Jahan Khan, one of the leading Sirdars at the Court of Ahmad Shah and Timur Shah: one of his grandsons Ghulam Rasul married a daughter of Fatteh Khan, Jaskani, and settled at Docharkha which was granted to him by her father. Nasar Khan, the brother of Ghulam Rasul, was a distinguished leader in the local wars during the Sikh rule: later he served under Sir H. Edwardes in the Multan campaign and also as a *risáldár* during the mutiny. He lived to a ripe age in the enjoyment of a Government pension of Rs. 1,440 per annum.

A grandson of this fine old soldier, Ghulam Kadir Khan, is a retired Sub-Inspector of Police and holds the *lambardári* of the village. Nasar Khan's other brother, Ghulam Muhammad Khan, has left numerous descendants: among them Kadir Dad Khan served as a *daffadár* in the 15th Cavalry in Afghanistan and Khaliq Dad Khan served as a *subedár* in the 1st Biloch Regiment.

(iv) Shah Muhammad Shah of Shahpur.

Shah Muhammad Shah, Saiyad, of Shahpur village, is the hereditary *Pír* of large numbers of Biloches of the Dera Ghazi Khan district: his grandfather Muhammad Zaman Shah rendered conspicuous political services in the Bilochistan Agency, in recognition of which the family hold a lease of part of Rakh Khokharwala. His ancestors used in former days to receive large allowances from the Amirs of Sindh.

(v) Shamji Gosains of Leiah.

The family of Shamji Gosains resident in Leiah town deserve notice. The present head of the family is Udhe Bhan, Honorary Magistrate, who is advanced in years and somewhat infirm now. He is one of the lessees of Rakh Khokherwala.

(vi) R. B. Tilok Chand of Leiah.

Rai Bahadur Tilok Chand, I.S.O., has settled at Leiah during the last few years and built himself a fine large house. The family reside at Hinjrai in the Sanawan *tahsil*: under the Sikh rule they had considerable influence in the Kot Sultan, Leiah, Dera Din Panah and Kot Addu *ilaqas*, Rai Lekhu Ram, grandfather of Tilok Chand, rising to the position of Diwan which he held for some time under the Governor of Sanghar. Tilok Chand has served Government for 36 years in various capacities from *náib tahsíldár* to acting Deputy Commissioner: he has recently been made an Honorary Magistrate, 1st Class, and is also Vice-President of the Leiah Municipality.

CHAPTER II—ECONOMIC.

Section A.—Agriculture.

Natural division into the Kachhi and Thal tracts.

The physical features of the *tahsil* divide it naturally into two tracts, the Kachhi and the Thal, each of which is distinguished by marked peculiarities in the quality of the soil and the character of its cultivation The soil of each of these two tracts is generally very uniform, and further classification is based on the manner of agriculture and the means of irrigation.

Soil classification.

The classes adopted for assessment purposes at Settlement are—

(*a*) *sailáb*, land deriving moisture solely from river flood.
(*b*) *cháhi-sailáb*, *sailáb* land which is assisted by wells or *jhalárs*.
(*c*) *cháhi*, land irrigated solely from wells.
(*d*) *báráni*, land dependent solely on rain.

The first two classes are confined to the Kachhi and the last two to the Thal.

Cultivated area

At the first Regular Settlement the total cultivated and fallow area amounted to 142,540 acres, out of a total area of 1,553,871 acres including Government *rakhs*. At the recent Settlement the cultivated area recorded was 165,922 acres out of a total area of 1,546,873 acres: the average areas used as the basis of the assessment were those of the period 1895-96—1899-1900 in the Kachhi and the period 1896-97—1900-01 in the Thal. The average sown area was put at 155,115 acres.

The following statement gives a comparison of the two Settlements in acres:—

Detail.	1st Regular Settlement.	2nd Regular Settlement.	Average areas of matured crops on which assessment was based at 2nd Regular Settlement.
	Acres.	Acres.	Acres.
Total area	1,553,871	1,546,873	...
Cháhi	63,669	26,961	31,388
Cháhi-sailáb	...	51,057	41,357
Sailáb	6,620	87,287	69,509
Báráni	...	617	422
Total cultivated and fallow ...	142,540	165,922	142,676

Cultivation showed an increase of about 36 per cent. between the two Settlements and at the same time the rise in price of the staple produce was about 20 per cent.

CHAP. II-A.

Agriculture.

Subsequent variations are shown in the table 18 in Part B of this volume.

The Kachhi—Description of soil.

The soils of the Kachhi may be classed under two heads, *cháhi* and *sailáb*. In its characteristics the soil all through the tract is uniform in character though varying in quality. In some places there are deep deposits of rich loam, in others the loam is mixed with an excessive amount of sand or forms a thin coating overlying a bed of pure sand. These differences however fade one into another, and the same field is in some places rich and in others poor. The quality of the soil, too, changes with the length of time that the land has been under cultivation. A bed of loam newly deposited by the river may be first class, but after some years of continuous cultivation it often gets poor and weedy. The presence of *kallar*, or natural salts, in the soil also affects the quality. In some parts of the Kachhi, especially in the case of well-irrigated land, soil which is naturally good is quite spoilt by these *reh* exudations. In a country subject to annual inundation, the character of the soil is always more or less liable to change. Land is classified almost entirely on its productive powers by the people themselves. But land with a marked admixture of sand is known as *retli*, with sand near the surface as *dramman*, and when covered with a coarse grass as *dhrabwáli*. The good soil enriched by silt deposits is called *mattwáli* : *gas* or light loam is also recognized. Land, the surface of which has been hardened and furrowed by the passage of floods, is known as *sar*. But these are all modifications of the same soil. The difference in productive power is due to the relative thickness of the alternate layers of sand and silt and the proximity of the former to the surface.

The Indus Valley contains no real *báráni*. Nor does the rainfall directly affect the area sown. It does, however, considerably affect the area matured and the outturn. Owing to the small rainfall its receipt in season is of the greatest moment. In years showing an average fall its unseasonable character has often led to complete failure.

Cultivated area.

In ordinary years nearly the whole of the arable land is cultivated, the proportion of fallow for the whole tract being from 5 to 10 per cent. on the cultivated area. A year in which 20 per cent. of the area remains fallow is very exceptional.

The cultivated area in the Kachhi recorded at the first Regular Settlement was 95,946 acres out of a total area of 289,135 acres : the cultivated and total areas recorded at the recent Settlement were 133,844 and 282,016 acres respectively. The cultivation all through the Kachhi depends on the inundations of the Indus. It is only the Kacha circle which is exposed to

erosion and diluvion, but the whole is more or less intersected by streams of the Indus. CHAP. II-A. Agriculture.

To insure the irrigation of the higher portion of the Kachhi, it is customary to throw dams across the channels by which it is intersected. The great object is to pass on the water from these embankments by side channels, instead of breaking the *band* and allowing the work to be entirely carried away. With careful management these embankments are kept up for years. A few small canals too have at different times been excavated for the irrigation of the higher lands. As a rule, however, the people trust to unassisted floods and percolation. It is only the higher lands which require artificial means for their irrigation, and in years of high flood there is no necessity for dams, as the Nasheb gets flooded up to the Thal bank At such times the people are often tempted to cut the embankments, and thus get rid of a portion of the water. After two or three years of high flood, they invariably get careless and stop making the dams; then after two or three years of deficient flood, when the lands remain dry, the dams are reconstructed, and the old water-courses cleared out. *Band* irrigation.

In the Indus valley the unit of cultivation is the well or *jhálar*, though in some villages separate holdings of pure *sailáb* lands are common. All the wells are aided by the river. Unit of cultivation in the well.

For the whole tract the years of medium flood, allowing of percolation without too great surface moisture, are the best. *Soma* is rare except in such artificial cultivation as the gardens and Powah wells of Leiah town. Estates lying between the main irrigation channels suffer somewhat from *kallar*. The only remedy for this is a fresh deposit of silt. Some villages have also suffered from the passage of floods, which have left a hard furrowed surface behind them, as for example near Karor.

Not only is the well a unit of cultivation but an example of the whole system in use. By describing the operations of the year on an ordinary well holding and its adjoined flood lands, a fair idea of this system may be obtained. The agricultural year begins on the 16th June. Clearance of new lands however will have been made during the previous winter. Agricultural labourers are engaged during the end of June or beginning of July. The usual calculation is one man to each yoke on a well, and if the owner's or cultivator's family are insufficient, labourers are engaged. In July the floods begin to fill the many channels. There is usually sufficient moisture from percolation to plough. Otherwise the well is put into use and the land watered once and ploughed. The ploughing is followed by manuring, which on well lands is only limited by the quantity available. On the Agricultural operations.

CHAP. II-A.

Agriculture.

Agricultural operations.

average well the custom is to divide the well area into three or four plots. Of these one is cultivated in rotation for the *kharif* and remainder for the *rabi*. The *kharif* plot receives the manure. In addition cattle of all kinds are folded on well lands from the 15th October to the end of December. Though all manure is usually devoted to the well lands, some is occasionally given to a *sailab* plot near the farm buildings or the well. After manuring the land is given two more ploughings and water, if there is too little moisture present. Large clods are broken with a rough roller or clod-crusher (*garmála*). The seed is thrown broadcast on the well lands and sown with a drill on the *sáilab;* the former method is called *chat*, the latter *náli*. After sowing the land is harrowed and rolled flat to retain the moisture. By the middle of August all *kharíf* crops have been sown. During September the *rabi* ploughings are carried out and manure put in if possible. The wheat lands are ploughed from four to six times, and for other crops three or four times at intervals of a few days. During November the *rabi* is sown and the *kharíf* crops harvested from the middle of the month. After December sowings for the *rabi* are useless November wheat is best, though liable to suffer from *mula*. Wheat needs one watering a month. Other crops get it when water is available. During November the well *adds* or courses are banked up, and the larger grasses, which are used as fodder, are removed. But if noxious weeds are detected further weeding is necessary. Rain is hoped for at the end of December. A shower or two at the end of February serves to swell the grain in the ear. Reaping begins about the 10th April. Gram will have been harvested earlier. As the sheaves are cut they are taken daily to the stack at the threshing floor. Threshing and winnowing go on till the 15th of June, on which date the agricultural year finishes. The *sailáb* lands are ploughed once or twice: some fodder crops are merely sprinkled in the sun cracks. No attempt is made to weed them and the crops are left unheeded to ripen. Wheat, usually on wells and occasionally on *sailáb* lands, is grazed down at least once. Beyond the system of manuring already described, no recognised method of rotation exists. The *dofasli* area is large and contains on the wells a proportion of *záid rabi* crops, such as tobacco, onions, garlic, &c. These are sometimes grown in the area of wheat cut for fodder, but as often in the area occupied by the barley crop, which is largely used as fodder, or on the land used for turnips. The wheat lands are also used for *bájra* in the *kharíf*, as the well channels are already prepared. In practice wheat is sown as possible, unless the land shows signs of weakness. Fair land is expected to carry *bájra* or *jowár* in the *kharíf* every second year. On some wells half the well area is cropped

CHAP. II-A.

Agriculture.

twice every second year. Turnips are used to prepare for the *kharíf*. The leaves are used as vegetables and the root mainly as fodder up to the end of January. The *kharíf* crop is usually sown on well water and ripened on flood. The *rabi* depends on the moisture from the floods for its sowing and ripens by aid of the well.

Agricultural operations.

The average area per well or masonary *jhalár* in the Pakka circle is about 16½ acres. Of these nearly 15 acres are matured in the *rabi* and the remainder in the *khárif*.

Average area per well.

Well cultivation in the Kacha circle amounts to 3 per cent. only of the matured area of the circle. It is on exactly the same system as in the Pakka circle. But the area per well is less and the proportion of more valuable crops is also smaller.

Of the *sailáb* area 25 per cent is cropped in the *kharíf*, 9 per cent. is under *til*, 5 under *bájra* and 4 under *jowár*. The rest are miscellaneons crops grown for fodder. Of the 75 per cent. under *rabi* crops wheat occupies 44, gram 9, barley 5, and peas 8. The rest is fodder, including 2 per cent of carrots and turnips.

Average proportions of various crops.

A few melons are grown as the *záid rabi* crop. There is no real rotation of crops. New lands are usually sown with peas, *samukha*, &c.; in the second year gram and sometimes barley is sown. These are followed by wheat which is continuously cropped until the soil shows signs of exhaustion. If this occurs the cropping is varied back to peas and other fodder crops. *Sailáb* plots near a well or hamlet sometimes get manure. Otherwise manure is not used. The system of cultivation is primitive. As little ploughing as possible is done and weeding is unheard of; the cattle used are miserable. In the main the Kacha circle is inferior to the Pakka; the constant uncertainty of their prospects leads to haphazard methods of cultivation and as soon as the wheat crop is garnered many of the villages are deserted. The inhabitants move off with their cattle to the higher villages till the floods subside; during the floods a few miserable families may be found perched on platforms or the roof beams of their huts. Their physique is decidedly inferior to that of the inhabitants of the Pakka villages, who again are inferior to their neighbours of the Thal.

The Thal.

The agricultural conditions of the Thal are entirely different from those of the Kachhi. In this tract cultivation is almost entirely by wells: in years of good rainfall, patches of *báráni* cultivation may be found, but their area is almost negligible. The cultivated area recorded at the recent Settlement was 32,196 acres out of a total of 1,049,825 acres, excluding Government

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rakh; the corresponding figures for the first Regular Settlement were 46,494 and 1,047,033 acres respectively. Between 1862 and the first Regular Settlement there was an increase of cultivation of about 13 per cent; the recent Settlement however showed a decrease of about 15 per cent. due to a considerable falling off of cultivation in the Thal Kalan Circle, in spite of a small increase in the Jandi Thal.

Number of wells.

The total number of wells in use at the first Regular Settlement was 2,014, of which 841 were in the Thal Kalan Circle and 1,173 in the Jandi; at the recent Settlement the number had fallen to 1829,—577 in the Thal Kalan and 1,252, in the Jandi.

Description of soil.

The whole of the tract is very sandy, and the chief distinction lies between sand which is almost entirely void of loam (*thadda*) and soil which contains a small admixture of loam (*tatta*). The former, which characterises the Thal Kalan, bears no crops without a plentiful supply of manure, but holds water well, and is consequently better suited for the production of light grasses and rain melons (*titak*). The *tatta* soil of the Jandi, unlike the soil of the Thal Kalan, will produce crops of some sort in its virgin state without manure, but it very soon wears out, and manure becomes here also a necessity of cultivation. The better soil of this class is known in the south as '*gas*', while that which is too hard to cultivate is known as *rappar*, or when covered with indurated sand, as *sikror*. Bottoms (*lak*) bearing *báráni* crops are called *paili;* sand-hills, *tibba* or *man*, when they bear melons are called *vári*. For the purpose of assessment cultivated land has been divided simply into *cháhi* and *báráni*, the latter term being used to denote either *pailis* or old well lands which bear oil and seed crops; purely melon land has, as at last Settlement, been left unmeasured.

Comparison with other similar tracts.

Whether for the purpose of grazing or of agriculture the soil of the Thal Kalan is as a rule inferior to the Sandal Bar, and certainly bears no comparison with that of the Karana Bar in Jhang, or the Bar in Shahpur and Bhera *tahsils*. As regards the lands more immediately adjacent, it is inferior to the Mianwali and Khushab Thals, though the higher spring level makes well cultivation more feasible.

Dependence on rainfall.

But as regards well cultivation it must be remembered that throughout the whole of the tract the well owner is dependent to an unusual degree on the rainfall. The well crops mature very imperfectly on irrigation only. The Thal grasses are so ephemeral that they literally spring up in one rainy season, and

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Agriculture.

Dependence on rainfall.

have disappeared almost entirely before the next rains are due. The failure of one summer's or winter's rains therefore may mean the loss of a great number of stock, and in such cases the well owner, unable to import fodder from the Kachhi for his cattle, and deprived at once of manure for his crops, and of the *ghi* and wool which generally bear part of the heavy expenses of well cultivation, either closes his well altogether, or cultivates only such fodder crops as will keep his cattle alive.

The *lu*.

Another natural feature with which the well owner has to reckon is the *lu*, a hot wind which, in the Thal Kalan especially, very frequently dries up the *rabi* crops just as they are maturing, and blows with such force during August and September as to make it difficult to grow any *kharíf* crops, except those designed merely for fodder Another factor is manure (*pi* or *ahai*). Without manure cultivation is unprofitable on the best lands, and impossible on the rest. The dung of sheep and goats (*mengan*) is better than that of cattle, but even that of camels, though full of deleterious salts, is used when none other is obtainable except in the salt lands of the Southern Thal. The dung of the Powindah camels is preferred. Manure is simply thrown on the land before ploughing; top dressing (*chanan*) is not practised. In the Jandi Thal *panah* or soil from beneath *phog* and other bushes is freely used for manure

Choice of a Thal well site and planning of the area.

There is much art in the choice of a Thal well site. In the high Thal a site is usually chosen in the pocket between two ridges, and if possible at a point where the downward slope will give the well lands drainage from all three sides. On the spot thus chosen the well is plotted out with all the regularity of an old Dutch garden. The courses (*ádds*) radiate out from the cylinder (*pui*) in rigid straight lines, and the cross courses at right angles present a geometrical scheme not unlike that of a spider's web. The main *ádds* are V-shaped and lined with clay. Leading out of the *ádds* on either side are the minor courses (*naukar* or *uri*) and on either side of each *naukar* are three to five irrigating plots (*kiári*). Those on both sides of the *uri* taken together are called a *nakar;* those on one side only form a *pakki*. The number of *kiáris* varies with the firmness or looseness of the soil. The systems followed in dividing a well are somewhat intricate, as the division made for purposes of cultivation frequently differs from that made by sub-division of ownership. The cultivating unit is the *nigál*. Wells, of which the actual or nominal strength is six or more yoke, are usually divided into three *nigáls* and those of which the strength is four yoke, into

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Choice of a Thal well site and planning of the area.

two. Each *nigál* has its own fallow and its own cultivation, independent of the others; in some cases it consists of two blocks, one on each side of the well. Thus, if a well consists of three *nigáls*, each *nigál* would contain two-sixths (*cheanga*) on opposite sides of the well. In order to secure an equal division of the well water among the *nigáls*, the day and night are each divided into four watches (*pahar*) of three hours each, and each *nigál* has a turn of so many watches. These are marked off by the shadow from a staff by day and on moon light nights, and on the darker nights by the movement of the larger stars, chiefly the Pleiades (*kitti*), Orion (*trangar*), Canopus (*munia*) and Great Bear (*palang*); the turns are kept strictly, and no compensation is made for time lost owing to accidents. They are changed on Friday, in order to equalize the division of day and night. For purposes of ownership, various systems of division prevail, but even in dividing ancestral shares, there is a tendency for the division to range itself into halves and thirds, in order to maintain the cultivating unit. A common division is into yoke and half yoke or oxen, the yoke, however, referring not to the actual number of oxen employed, but to the presumed full strength of the well, *i.e.*, an ox usually denotes one-twelfth in the Thal Kalan, and one-eighth in the Jandi. Again the division is often based on watches (*pahar*), one watch equalling one-fourth of the whole. This is sometimes carried down further into *ghari*, the interval between two turns of the hour glass. There are seven-and-a-half *gharis* in a watch.

Rotation of crops.

The maintenance of a Thal well involves as much labour and nicety as its construction. As shown above, each cultivating unit or *nigál* has its own fallow and its own rotation. Fallowing, except in the small wells near the Powah, is given systematically. The practice varies but little. Looking at a well, for instance, in March, it would be seen that full half of each *nigál* bears wheat and barley, the staple crops, the other half being fallow. As soon as the wheat is cut, a small part of the stubble land, usually that nearest the well, is planted with tobacco and vegetables (April-May); another part of the same land is planted with cotton (May); a further part with autumn crops (July-August). These crops, which are on the ground till January at latest, occupy most of the land which was under wheat; the remainder of the wheat land lying furthest from the well is left fallow. The second half of the *nigál* has meanwhile lain fallow all the summer, the sheep and well oxen having been quartered on it for the sake of the manure. This fallow receives its first

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Rotation of crops.

ploughing (*si*) during the rains, and a small part is sown with turnips in October, the rest with wheat in November. The ordinary period of fallow is thus from January to November, but the land furthest from the well (*sirana*) gets double this period, as it is not sown with an autumn crop. In the Thal Kalan, where there is little *kharif* cultivation, the proportion of land lying fallow is of course larger. Ploughing for the wheat crop is carried on immediately after rain has fallen, it being a well-established precept that the land should be ploughed once for every rain that falls, and that ploughing without rain is useless. The land after ploughing is smoothed over with the greatest care, either by the hand rake (*dindali*) or a toothed board (*kaen*) drawn by oxen. The *kiáris* are next mapped out by pegs and string, and the ridges (*thal*) thrown up by hand. The first flushing (*rauni*) is then given, and the seed sown. Much care is taken in selecting the ears (*sitta*) of corn from which seed is to be taken, and the grain is passed through the sieve (*chaiji*) to remove the seeds of *bhukal* and other weeds. It is sown thickly and broadcast (*chatt*), being mixed with sand to increase its bulk. The dril (*nali*), used in the *sailáb* lands of the Kachhi, is not found in the Thal. The method is wasteful, but the people are persuaded that it secures the maximum of crop to the minimum of space ; about a maund-and-a-half of wheat or barley is sown to the acre. The number of waterings given varies with the locality. In the Thal Kalan wheat will ripen with three waterings ; in the Jandi Thal it needs a full five. The young wheat is generally grazed down to harden it. The crops are cut by the owners and their hands with the help of chance labour, the *laihar*. The day's cutting is usually carried to the threshing floor (*khalwára*) at once, and the threshing (*gah*) is carried out as soon as possible. In some cases the oxen, in treading out, are aided by a heavy log (*phala*) dragged after them. Winnowing is in most cases done not by the owners but by menials, the winnower being called *pona*. The heap of cleaned corn (*dheri*) is as a rule divided by the owners themselves, a weigher (*dharwái*) being employed only in a few of the villages. The grain is stored in big mud jars (*kaloti*) : the *bhusa* in a circular erection (*phalla*) of either *kána* or cotton sticks.

Báráni cultivation.

The above account refers entirely to well cultivation. As regards *báráni* cultivation it is very largely of the catch-crop order. It is of a quite different class to the *báráni* in the Shahpur Bar, which is as a rule plentifully inundated by long catch drains. Nothing is done until the rain falls. On the first favourable rain the plough is driven lightly across the land and

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moth, gram or *táramíra* scattered by hand in the furrows. No manure is used. If two or three rains fall subsequently there is a crop, otherwise there is none; in any case the crop is a light one. When so much is left to the will of heaven, it is difficult to speak of an "average outurn." A *lak* may bear a crop two years running, and then bear nothing for four or five years. Quite as important as the crops mentioned above, and in many parts of the Thal even more so, is the cultivation of rain melons (*hindwána* or *titak*, the ripe fruit being *pitta*). These are either sown in the *pailís* in the manner described above, or on the sand-hills, which are in this case called *várís*. These *várís* are not measured, and do not find a place in the *girdáwari*. When melons are sown on the sand-hills the ground is not ploughed, but is scratched with a branch and the seed dropped on to it. If the rains be good, *titak* grow in astonishing profusion. The fruit is eaten, the seeds (*chichka*) are ground into flour, and the skin given as food to the cattle and sheep. The growth, however, is very capricious, and one hears a good deal more of melons than one sees of them: but when the crop succeeds, the fruit furnishes the chief food of the people for nearly two months of the year.

Average proportions of various crops.

In both circles of the Thal the *kharíf* harvest is of minor importance compared with the *rabi*, being only about 19 per cent. of the whole.

Of the *kharíf* area, 8 per cent. is under *jowár*, 6 under *bájra*, 4 under cotton and one under other miscellaneous crops.

Of the *rabi* area, 54 per cent. is under wheat, 9 under barley and 3 under *táráníra*; the rest comprises fodder and other miscellaneous.

Description of the chief crops— (a) *Rabi* crops—

Table 19 in Part B shows the areas under each of the principal crops since 1890-91, and quinquennial averages throughout this period.

The increase of gram and barley at the expense of wheat during the period following the recent Settlement is the most noteworthy feature.

Wheat.

Wheat is the most important not only of the *rabi* but of the whole year's crops. There is no *báráni* cultivation of this staple. The kinds sown are usually distinguished as red (*ratti*) and white (*baggi*). Of the white wheat the best known varieties are the *rodi* or beardless and the *goni* or bearded.

The crop is liable to the attacks of *dhanak*, a disease which attacks and shrivels up the ear, *gudhasa* or *ratti* which shrivels

the sprouting plant, and *khana* or *mula*—smut or green blight. The average yields assumed at the recent Settlement were : - CHAP. II-A. Agriculture. Wheat.

Cháhi-sailáb	... Kachhi	... 320 seers per acre.
Sailáb	... ,,	... 240 ,, ,, ,,
Cháhi	... Thal	... 240 ,, ,, ,,

Barley is mainly cultivated for the reason that it ripens some twenty days before wheat and is thus of great use as green fodder *khális* at a critical time of the year. It is also said to require less water than wheat. A little *báráni* cultivation of this staple is carried on chiefly on disused well areas in the Jandi Thal circle. The average yields assumed were— Barley.

Cháhi-sailáb	... Kachhi	... 280 seers per acre.
Sailáb	... ,,	... 240 ,, ,, ,,
Cháhi	... Jandi Thal	... 280 ,, ,, ,,
,,	... Thal Kalan	... 300 ,, ,, ,,
Báráni	... Thal	... 160 ,, ,, ,,

Gram forms one of the chief *báráni* crops in the Jandi Thal: its cultivation is however irregular and precarious. It is the first of the *rabi* crops to ripen and it is sown almost as much for the sake of fodder as for grain : the young leaves (*pali*) are sometimes eaten as a pot-herbs. The seed is sown very lightly, about 10 or 12 seers to the acre. Gram

The average yields assumed were :—

All Kachhi lands	...	...	... 200 seers per acre.
Cháhi in the Thal	...	...	... 240 ,, ,, ,,
Báráni	...	...	... 80 ,, ,, ,,

The whole of the well areas under peas are used as fodder: where sold, the crop is usually sold standing. About 20 seers per acre represents the amount used as seed. Peas.

The yields assumed were 160 seers to the acre in all Kachhi lands.

Tárámíra, or *ussun*, as it is locally named, is a crop of minor importance : in the Thal about half the area is by *báráni* cultivation. In the Kachhi it is usually sown alone or with *másh* if it is intended to ripen, and with peas or gram if it is to be used as fodder. The yields assumed were :— *Tárámíra.*

All Kachhi lands	...	...	... 120 seers per acre.
Thal *cháhi*	...	...	... 160 ,, ,, ,,
Thal *barani*	...	...	... 60 ,, ,, ,,

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Tobacco.

Tobacco occupies a very slight area. For sale it is grown only on the Powa wells of the *tahsil*. The soil chosen is usually that nearest the well and a great deal of manure is used. Two kinds are recognised,—*Jalandri*, which matures first but is courser and consequently cheaper, and *talai*, a finer variety which does not mature until about the end of May. The leaves are dried in the sun and then made into twists (*subbs*).

Rs. 25 was assumed at last Settlement as the value per acre.

Vegetables.

Vegetables other than turnips occupy a very small part of the cultivated area and are consumed entirely by the tenants. In the Powah however though the area is small the cultivation is an item of some importance. Near Leiah and Karor land is leased to *kirárs* for the *záid rabi* and as much as Rs. 80 is given for a favourably situated well. Or a contract may be given to a *kirár* for the labour necessary for the crop: the contractor will take from $\frac{1}{4}$ to $\frac{1}{3}$ of the produce and employs the poorer Hindu shop-keepers of the town. Rs. 15 per acre was the value assumed for vegetables at the recent Settlement.

Turnips.

Turnips, *gonglu*, are grown systematically on almost every well and in the Thal occupy as much as 15 per cent. of the total well area. They are sown about the middle of October on land which has as a rule been lying fallow since the previous January. The whole crop is consumed by the well cattle. Part of the crop is reserved for seeding and is treated for this purpose in a somewhat peculiar manner. When full grown the plant is pulled up, and the root cut in half and scored with a knife, and then replanted and left to flower. The root thus treated is useless for fodder.

(*b*) *Kharíf* crops—*Jowár* and *bájra*.

Jowár and *bájra* constitute the chief *kharíf* crops and of the two *bájra* is the more widely cultivated. In the Thal they occupy 14 per cent. of the total *cháhi* area and 71 per cent. of the *kharíf* area. A certain part of the *bájra* crop is generally cut for fodder and *jowár* may be said to be grown almost entirely for this purpose. Both are sown in July-August on the lands from which the wheat has been lately cut: the land is not ploughed much, but a good deal of manure is used, especially in the Jandi circle where the crop is more important than elsewhere.

The yields assumed were—

Cháhi-sailáb ...	Kachhi	... *Bájra*, 200 seers per acre.
Sailáb ...	„	... *Jowár*, 180, *bájra* 140 seers per acre.
Cháhi ...	Thal Kalan ...	*Jowár* and *bájra* 200 „ „ „
„ ...	Jandi Thal ...	*Jowár*, 220, *bájra* 280 „ „ „
„ ...	Kachhi	... *Bájra*, 280 seers per acre.

CHAP. II-A. Agriculture. — *Til.*

Til occupies but a small area and is confined practically to *sailáb* lands. It is a risky crop and subject to frequent failure. Its oil is esteemed and the stalks are used mixed with more nutritive fodder for cattle. The assumed yield is 120 seers to the acre on *cháhi-sailáb* and 100 on *sailáb* lands.

Cotton.

Cotton is of little importance in this *tahsil.* In the Thal it occupies but 4 per cent. of the whole *cháhi* cultivation, and is chiefly grown in the Jandi circle. It is sown broadcast in April on land from which the wheat has lately been cut, the seeds being first rubbed with cow dung to preserve them from white ants. The plant *war* stands only one year. It ripens about the end of December and picking goes on in some seasons until the middle of January. The seed is locally known as *pewa* and used for fattening cattle: uncleaned cotton is called *phutti*, and the pods *gogra*. The plant is liable to the ravages of *kana*, apparently a blight which attacks the pods, and to *kaka*, a disease which seems inherent in the plant and withers it from the root.

The assumed yields were—

Cháhi-sailáb ..	Kachhi ...	130 seers per acre.
Sailáb ...	" ...	100 " " "
Cháhi ...	Thal ...	120 " " "

China.

Of other *kharif* crops, *china* deserves notice for its excellence as a cattle fodder, though the area grown is only slight.

Village menials.

The various village menials and others who perform subsidiary tasks connected with agriculture are fully described in the District Gazetteer and no further remarks are called for in connection with the Leiah *tahsil.*

The following description taken from Mr. Hailey's Assessment Report of the Thal is however instructive and applies with but slight modifications to the whole *tahsil* :—

"There are few wells which are, or indeed can be, worked entirely by the owners. It is a universal rule that one *beli* (a labourer, either owner or hired man) is needed for each yoke of oxen on the well, up to a maximum of six. The hired labourer is either a monthly hand (*rahuk*) or more rarely a *lichain* who takes a share of the produce. When a *lichain* is employed, the normal rule is that the produce, after deducting all expenses, including seed and land revenue, is divided into nine *lich* of which the 'oxen', *i.e.* owners, take five, and the labourers, including working owners, take four. Where the owner does not recover from the common heap the cost of the seed, there are five *lich*, the 'oxen' taking three; but where labour is scarce, as in the Thal Kalan, the labourers take a full half of the net produce, and even in some cases of the gross produce, as the owner foregoes any deduction from the

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common heap on the score of revenue, well-ropes or seed. The wage of the *rahuk* is made up of payments under a bewildering variety of titles. A fairly normal rate is as follows :—*khad* (food) 32 seers a month, being wheat for six months, barley for two, and other grains for four; a money wage of about Re. 1 a month (*seropa, kiri, kiriun* or *rok*), and a lump payment (*mudha*) of three or four maunds of wheat every six months. Sometimes no *mudha* is given, but an increased *seropa*, in other cases a reduced *seropa* is supplemented by a yearly gift (*virsa* or *roti*) of a maund of wheat, or by a fee (*bijrai*) of a maund at sowing time. At the grain rates prevailing in the last twenty years the average cost of a *rahuk* works out at about Rs. 45 to Rs. 50 a year, and account books show that this is the amount which has in many cases been paid. Briefly it may be said that the cost of a *rahuk* is far higher in the Thal Kalan than elsewhere."

Takávi advances.

Table 20 in Part B shows the amount advanced annually as *takávi* under the Land Improvement and Agriculturists' Loans Act.

Sales, mortgages and redemptions of lands.

Table 21 gives statistics relating to sales, mortgages and redemptions of land.

Agricultural debt.

The causes of debt are the usual ones. The large holders are fairly well off, but the small holders have to contend against occasional failures of crops but most against their own improvidence. The buying of cattle from the Sindhi traders, who are themselves dealing on borrowed capital, is a fruitful source of debt. The small cultivator must borrow and has to pay exorbitant rates of interest : if it were possible to finance his real needs at cheap rates, as for instance through co-operative credit societies, there would be little debt. There are however always a certain number of men incapable of retaining their hold on the land : partition also among numerous sons can but lead to eventual disaster, and there are many whose carelessness or ill-fortune dip them irretrievably into debt. A murrain on the cattle or the collapse of wells are sufficient to place a man in the usurer's hands for ever. At the recent Settlement it was found that in the Kachhi 32 per cent. of the total cultivated area had changed hands since the previous Settlement of which 19 per cent. was to the money-lending class. Money-lenders were found to be holding in mortgage 12 per cent. of the total cultivated area : the cultivated area had increased since the previous Settlement, but that increase was highest in the Kacha circle where mortgages were few.

In the Thal the statistics disclosed an inclination of the old owners to desert this tract. In the Jandi circle 13 per cent. of the total number of individual holdings were under mortgage, of which 8 per cent. was to the money-lending class; since the

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previous Settlement 20 per cent. of the total of individual holdings has been sold, of which 8·5 per cent. was to money-lenders.

Agricultural debt.

In the Thal Kalan 10 per cent. had been sold since the previous Settlement, of which 3·5 per cent. was to money-lenders; 8 per cent. was the proportion found to be under mortgage at the recent Settlement.

Value of land.

The value of land has risen steadily in respect of both mortgages and sales. In the earlier days the *sáhúkár* mortgagee went up to and even beyond the sale price. The following table indicates the rise:—

Bhakkar and Leiah Tahsils.

PERIOD.	MORTGAGE VALUE PER ACRE.		SALE PRICE PER ACRE.	
	Cultivated	Total	Cultivated	Total.
	Rs.	Rs.	Rs.	Rs.
Before last Settlement	22	8	...	...
1878-79 to 1879-80	25	8	20	8
1880-81 to 1884-85	22	10	19	11
1885-86 to 1889-90	33	15	31	19
1890-91 to 1894-95	34	19	43	27
1895-96 to 1899-1900	37	22	57	27

Alienation of Land Act.

The Alienation of Land Act has had a salutary effect in checking alienations to the money-lending classes and forms of mortgage permitted by the Act are not uncommonly adopted. The proportion of agricultural tribes has always been large and lands seem to be redeemed as freely as they are mortgaged: the market for transferable land has not therefore been unduly restricted.

Agricultural stock.

Table 22 in Part B of this volume gives statistics relating to various kinds of agricultural stock.

The *tahsil* contains wide grazing grounds, from which a considerable revenue is realized. The consideration of the various classes of stock kept and the profits from each is therefore of importance. With the exception of buffaloes and camels, the stock bred is generally poor and small. The population of the Thal is half pastoral, and agriculturists no less than graziers are very

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much dependent on their stock. The revenue is paid largely from the sale of *ghi* and wool of young camels, and the chief article of diet throughout the *tahsil* is milk. To estimate the real number of stock in the tract is difficult, as the graziers are migratory and the stock is scattered over a very large area. In the Thal the number of horned cattle is in most years small: sheep are the chief stock in the Thal Kalan and goats in the Jandi Thal. Everyone, even the village menial, keeps them, and there is probably no house in an ordinary year without its *nikka mál* (small stock). Camels are seldom kept by the poorer land-owners and belong either to professional camel-graziers (Jats) or large land-owners.

Sháhgumáshtri system.

There is a system of joint ownership in stock, called *sháhgumáshtri*, which merits some notice. The *sháh* or real owner buys the animals and hands them over to the *gumáshta* to graze The latter takes the *ghi*, the milk, the profits of the manure and half the wool, and pays the *tirni*. At stated intervals accounts are struck, the existing stock is valued, and any increase on the sum originally laid out is divided in equal shares between the *sháh* and the *gumáshta*. There are very elaborate accounts of this nature extending over many years, but they seem to lead to very few suits in the courts. In some villages the greater part of the stock is owned by *kirárs* on the *sháhgumáshtri* system.

Bullocks.

There is no export of cattle, but plough and well bullocks are imported. The cattle locally bred are generally small. In the Thal it is often difficult even for close browsers like sheep to pick up a subsistence. The large cattle required to work the Thal wells are nearly all imported from the south, from Rajanpur and Shikarpur, and a few only are home bred. The breeding stock has improved but little and the *zamíndárs* take no trouble to put their cows to good bulls. The average price at which bullocks are bought is (taking good and bad together) Rs 20. The bullock is used at the age of four (*chaugha*) or five (*chhigga*) and is at its best from six to eight (*mila hua*), *i. e.*, having got all its teeth: it becomes a *budhra* at about ten. The skin is worth from one to two rupees.

District Board bulls.

Recently some attention has been paid to the matter of breeding by the District Board. A sub-committee of members has been appointed for the *tahsil*, for the purpose of encouraging improvement in the breeding of cattle. The number of District Board bulls has been increased and some bulls of Dajal and Hissar breed have been introduced. The number of District Board bulls now maintained in the *tahsil* is 3.

It is as yet too soon to estimate the success of these efforts.

CHAP. II-A Agriculture. — Cows.

Most *zamíndárs* keep a cow or two, while Hindu shopkeepers usually keep several. In the Thal, though less important than sheep, a few cows are to be found at most of the wells. The owners generally have to send their cows to the Kachhi for grazing for several months of the year. The Thal cow is small and a poor milker, an average cow giving two seers of milk a day for seven months in the year. The annual production of *ghi*, after allowing for expenditure of milk on domestic uses, would be 12 or 13 seers. The average value of a cow in the Thal is about Rs. 15 to 20. They begin to breed at about five years old and will bear five or six calves.

Buffaloes.

Most of the buffaloes of the *tahsil* are to be found in the river villages of the Indus valley. There is no grazing for buffaloes in the Thal. Wherever there is suitable grazing for them, they are very profitable. In the Kachhi the possession of a buffalo is a sign of respectability and the presumption is that whoever does not keep one is hard up. As a rule the Kachhi *zamíndárs* give their buffaloes no artificial food. They are allowed to graze in the jungle, and sometimes in the season get fed on peas (*mattar*) or other green crops. A buffalo calves when four years old, after which, if breeding regularly, she calves every second year. She gives milk for a year more or less after calving, and calves generally five or six times successively before she ceases.

In an ordinary herd of 40 buffaloes on an average a third or a fourth will be in milk at once; and equal number will be with calf and the remainder will be made up of young beasts under four years old, and of animals that have not held or that are barren or past bearing. A buffalo in milk is called *trokhar*, out of milk *korag*. An ordinary Kachhi buffalo, when in milk, gives about four seers a day; but the amount varies with the time of year, being most plentiful during the rainy season and early autumn, when fodder is abundant. The yield of *ghi* is about a seer to every sixteen seers of milk. The expense of keeping them when a man has sufficient grazing for them is little more than the pay of the herdsman. The latter is often paid in kind, being given the milk every fourth day as his share of the business. Besides the *ghi* the owner of a herd of buffaloes makes something out of the young males. Buffaloes are used very little in this *tahsil* in agriculture; the young bulls, however, are bought up by dealers from the Central Punjab. The bulk of the male calves are made away with, however, soon after birth, to save the milk.

CHAP. II-A.

Agriculture.

Camels.

Camels are extensively bred in the Thal, which affords abundance of grazing. For most of the year they graze in the *lána* country. During the spring and early summer, from May to July, they graze in the *jal* tracts.

None-the-less, the Thal camel, in spite of the vast areas of *lána* and *jal*, is inferior to those of the Kachhi or of the Jhang and Shahpur districts or the Powindah camels. The reason no doubt is that *jal* and *lána* are insufficient as food, and that camels need also loppings from the *jand*, *kikar* or *ber*, and at certain seasons also green food such as turnips. The reason for the fact that camels are chiefly owned by the larger land-owners or by professional Jats is that it does not pay to keep them except in some numbers, and the grazing and *rakh* taxes in such cases mount up to a considerable figure. A *wag* of about ten camels needs two *chherús*, who, as a rule, take duty day and day about, for the animals range very widely in feeding, and one man cannot tend them continuously. The camel *chheru* receives about Rs. 1-8-0 per month wages, and subsists on the milk of the she-camels. The *dáchi* is covered by the *úth* when about 4 years old (*puraf* or *lihári*) and carries for thirteen months. The foal (*toda*) is weaned fully when about a year old, but the dam's udder is usually tied up in a bag long before then. The *dáchi* bears till she is about 18 years old. As a rule males only are laden. The foals are first broken to the nose-string (*mahar*) when about three years old (*tirhan*) and bear loads till they are 17 or 18 years of age. No *ghi* is made from camel's milk and the hair (*jat* and *milas*) is worth only about one anna a year for ropes. The skin is worth about Rs. 2, being made into *kupás* for *ghi*. A good *chauga*, *i e.*, six years old, seldom sells for more than Rs. 70 or Rs. 80, and the average may perhaps be put at Rs. 60. Practically no riding camels are bred in the Thal. Except in times of unusually high demand the price of camels seems to have declined of late years owing to the improvement in roads and the growth of railways. The profits from camels are at all times very precarious. A she-camel bears on an average about six foals. The females are kept to replenish stock, for camels are very delicate and subject to all sorts of murrain.

Sheep and goats.

Sheep and goats are grazed by an *ajri* or *cheru*, one man being considered sufficient for an *ejur* of from 80 to 120 animals (*paháru*). The *ajri* receives a *dhusa* (blanket), shoes and *roti*, the latter being 30 seers a month. The animals are kept out in barns (*bhána*) in the jungle in the cold weather, but are herded on the well lands for the sake of the manure in the hot weather

CHAP. II-A. Agriculture. Sheep and goats.

and once every day in the cold; and it is usual for some reason to light a fire and fan the smoke in their face with a sheet as they come up to the trough to drink. Powindah graziers usually have to pay a *pivi* or watering fee, but in the case of other graziers the manure is accepted as an equivalent. In many cases indeed the owner makes a sum out of the manure which exceeds the amount he has to pay the *chheru*. Sheep live mainly on the *chhember* grass, and though they will eat the young shoots of *lána* and *phog* and even *bui*, they die off rapidly directly the *chhember* fails. Goats are hardier, and the *jand* and *babbil* on which they depend are less liable to fail them. All small stock are subject to a variety of diseases, most of which are rapidly fatal.

Sheep yield both *ghi* and wool; the goat is of less value, and is chiefly of use as supplying drinking milk. It is shorn once a year in *Cheth*, and the *jat* produced, which is used in making ropes, is worth one anna a year. Milking goats (*trokar*) are sold for about Rs. 4 and rams fetch from Rs. 3 to Rs. 3-8-0. In 100 goats the yearly sales might be put at 20 = Rs. 60; skin=Rs. 5; *jat*=Rs. 5. The cost would be *chheru* Rs. 36, reduced a good deal if manure is sold; revenue (at an average of one anna)= Rs. 6-4-0; total Rs. 42-4-0. The figures relating to sheep are much more important. They are shorn twice a year, and the shearings (*pothi*) have of late years been sold at about four or five to the rupee in the Thal, and five to the rupee in the Jandi Thal. A sheep will thus yield about eight or nine annas worth of wool in the year. The milk is not drunk by the Hindus or the richer Musalmans, but every one else drinks it. The ewes give milk for about four months after lambing. They are milked twice a day; the cream is churned with the *madhána* and the butter-milk (*lassi*) reserved for drinking. A milking ewe (*trokar*) may produce from about one seer to a half seer of milk a day, and if she lambs twice and remains in milk for seven months of the year, should in theory produce nearly 3 seers of *ghi* a year. Ewe's milk is esteemed above all others for its *ghi*. The *zamíndár* sells sheep's *ghi* to the *beopári* or trader who mixes it with *ghi* from cow's milk and sells it as second class cow's *ghi*. The butchers from Peshawar and Multan buy up rams for about Rs. 3-8-0 and ewes for about Rs. 2-8-0. The skins sell for about three or four annas. The sheep are of the ordinary thin-tailed variety, and are much lighter than the fat-tailed sheep, *dumbas*. In good years sheep multiply fast, but occasionally nearly the whole stock of a group of villages may be exterminated by murrain.

CHAP. II-C. Forests.

Horses and ponies. Donkeys

The number of horses and ponies in the tract is inconsiderable and they are mostly of small size.

Donkeys are largely kept, for the most part by *banias*, though near towns the *zamíndárs* keep them for fetching manure. They are employed in conveying merchandise, carrying bricks and other articles, and also for riding.

Mules.

Practically no mules are bred in the sub-division.

Diseases of cattle.

The chief diseases which attack sheep are *múnkhur* or foot and mouth disease; *pan* or itch; *rikki* or *churki*, dysentery; *jhola*, convulsions; *galgotu*, ulcerated throat; and *pipri* or *tili*, a fatal catarrh. These diseases also attack horned cattle which are, in addition, subject to *mihru*, a maggot producing festers, and *pipanu*, a swelling of the intestines.

The most fatal disease is cowpox, known variously as *sítla*, *móiráni*, *cheechak* or *thadri*. The remedy usually adopted is to take the affected animals to a shrine.

Veterinary dispensary.

There is one veterinary dispensary at Leiah with a Veterinary Assistant in charge: an Arab stallion and a donkey stallion are kept there. The institution is fairly well patronized.

Cattle fairs.

There are no cattle fairs in the sub-division.

Fisheries.

The fisheries in the *tahsil* are confined to the Indus where it is free to all and carried on to a considerable extent.

Date palms.

The sub-division is well suited to the cultivation of the date palm and there are numerous groves along the Powah and Dhaha. The indigenous kinds are all inferior in quality.

Arabian Gulf dates.

The Agricultural Department has recently imported suckers of the best Arabian date palms from Basra and planted them in the District Board garden at Leiah: there are 482 young trees now alive and the experiment promises to be very successful. The suckers were planted in 1912.

Section C.—Forests.

Total number and area of *rakhs*.

There are 13 Government *rakhs* in the *tahsil* with a total area of 218,237 acres; they are Unclassed Forests and under the management of the Deputy Commissioner.

History of the *rakhs*.

Of these *rakhs* which are in reality little but grass preserves, 8 have come down from Sikh times, some of them dating as *rakhs* from the time of the Jaskani rulers. When the country came under the Nawabs of Mankera, a series of military

CHAP. II.C.

Forests.

History of the *rakhs*.

posts was established across the Thal, numbering 23 in all in the Leiah and Bhakkar *tahsils*. For the subsistence of the garrisons it was necessary to take up blocks in adjoining land and form them into preserves for the supply of forage and fuel. These *rakhs*, however, never formed tracts surrounding a post, but always lay to one side, thereby leaving grazing on the other sides free to the peasantry. The British Government retained these preserves and thereby conferred a very great benefit on the people By strict closure for a month or two in the spring and again during the rains, when the grass is growing, they become reserves of great value when the common pasturage is exhausted. Their abolition would prove a distinct calamity, as they would be overrun by cattle simultaneously with the village common lands, and the grass would be wasted and not as now available in time of scarcity elsewhere.

British Government retained the pre-existing *rakhs*.

Demarcation of boundaries in the Thal at the 1878 Settlement

At the 1878 Settlement the question of the grazing assessment and *tirni* arrangements became involved with the demarcation of boundaries in the Thal waste. Hitherto the Thal waste generally had been regarded to a certain extent as the property of Government.

At the same time certain bodies of *zamindárs* had exclusive rights to sink new wells in almost all parts of the Thal except the Government *rakhs*.

On the other hand there were no exclusive rights of grazing and both residents and outsiders grazed their animals freely all through the Thal, regardless of the so-called village boundaries. The Thal boundaries of villages lying partly in the Thal and partly in the Kachhi had been demarcated by the Revenue Survey in 1856-67, but the remaining villages had been left untouched.

In about 1864, in accordance with a general order issued by the Commissioner for the whole district, the supposed boundaries of most of the remaining Thal villages were laid down by the *patwaris* and rough *thakbasts* were made. At the 1878 Settlement the whole question was elaborately discussed. The proposals made, the conclusions arrived at and the reasons therefor are set forth at pages 260 *sqq*. of Mr. Tucker's Settlement Report to which the reader is referred for fuller information.

In brief it was decided—

(1) to respect absolutely the village-to village demarcations of the Thal-Kachhi estates made by the Revenue Survey in 1856-57.

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Forests.

Demarcation of boundaries in the Thal at the 1878 Settlement.

(2) In the case of those Thal estates not demarcated by Captain Mackenzie, where the subsequent demarcations did not give the village an excessive amount of waste, or in other words where the estates were small and there were many wells, then, the whole of the waste was to be allotted to the estate, the same boundaries being adopted or only slightly altered and simplified.

(3) In the case of the large Thal villages, to cut these up as far as possible into separate *dakhili mauzahs* of about the same size as the smaller Thal villages mentioned above. After so doing the intervening blocks of waste would be formed into Government *rakhs*.

The principle followed was that, subject to the above rules, allotments of waste land were made at fixed rates in proportion to the cattle of each village which were enumerated. The excess waste became Government *rakh*, while each village acquired the allotted waste in full property and could exclude outsiders from grazing therein.

Since Government and the village proprietors had hitherto had concurrent rights in the Thal—the *zamíndárs* being entitled to exclude outsiders from sinking wells, while Government could permit outsiders to graze within—this demarcation partook of the nature of a partition.

The scale on which these allotments of waste was made was—

Camel and horned cattle per head ... $12\frac{1}{2}$ acres = 5 shares.

Sheep and goats ... ... $2\frac{1}{2}$ acres = 1 share.

In the Leiah *tahsil* no special allotments were found necessary, since the original *mauzah* boundaries were much more clearly defined than in Bhakkar and were generally retained, no new *rakhs* being formed except in disputed border tracts.

Five new *rakhs* formed in 1878.

As a result five new *rakhs* were formed at this settlement with an area of 103,705 acres, and some of the old *rakhs* were slightly enlarged. A few wells were unavoidably included in the new *rakhs* and some existed in the old Sikh *rakhs* : these were assessed to land revenue in the ordinary manner, while for grazing purposes they have been included in those *mauzahs* to which by position they naturally belonged, or to which they had been previously attached before the new *rakhs* were formed. The proprietors of these wells are allowed to graze their cattle within a limited portion of the adjoining *rakh* area all the year round,

CHAP. II-C.

Forests.

but beyond these limits they come under the general *rakh* rules as regards grazing fees and close seasons.

Rakh Khokharwala.

The only *rakh* in the Kachhi is Rakh Khokharwala which consists of two separate plots, the total area of Government property being 1,073 acres, while 493 acres are privately owned.

Of the Government area 1,012 acres have been given on lease for cultivation for 20 years or the duration of settlement as follows :—

Lessee	Area	Year of grant.
Gosain Udhe Bhan	150 acres	1889.
Mr. Alexander Broadway ...	613 „	1884 and 1888.
Mehr Shah	249 „	1882.

These persons pay *málikána* at the rate of Re. 0-6-0 per rupee of the land revenue ; the land revenue and grazing assessment are fluctuating as elsewhere in the circle. The amounts received in 1914-15 from the leased areas were *málikána* Rs. 127, land revenue Rs. 338-10-0 and grazing assessment Rs. 32-8-0.

The twelve Thal *rakhs*.

Lease system.

The remaining twelve Thal *rakhs* are leased to contractors nominated by the Deputy Commissioner from the leading *zamíndárs* of the adjacent villages. The leases are renewed from year to year, but usually the same persons remain for long periods. The demand is fixed for the term of settlement and each village participating has a fixed share in the contract. Subject to the Commissioner's control the Deputy Commissioner has power to remit part of the demand when circumstances render relief necessary owing to drought or murrain. Fines used to be levied on all cattle found grazing in the *rakhs* during the times of closure and were appropriated by the contractor. Later the fine system was abolished and trespassing cattle are taken to pounds. The plough and well oxen of adjacent villages are allowed to graze free of charge except during the close season. The grazing rates vary, but the usual scale is :—

		Rs.	A.	P.	
For 6 months' grazing	Horned cattle ..	0	1	6	per head.
	Camels ...	0	2	6	„
	Sheep and goats ..	1	0	0	per 100.

CHAP. II-E.

Arts and Manufactures.

Lease system.

The scale of fines was uniform and at the rate of—

	Rs. A. P.	
Horned cattle ...	0 1 0	per head.
Camels ...	0 2 0	"
Sheep and goats ...	1 0 0	per 100.

Details of the Thal *rakhs*.

The details of the Thal *rakhs* are as follows :—

Name of *rakh*.	TOTAL AREA IN ACRES.		AMOUNT FOR WHICH LEASED.	
	1st Regular Settlement.	2nd Regular Settlement.	1st Regular Settlement.	2nd Regular Settlement.
			Rs.	Rs.
Jharkil	7,593	8,115	75	90
Tibbi Kalan	17,354	17,575	85	130
Fattehpur	8,666	8,402	106	70
Siwagh	13,973	14,099	110	160
Nawan Kot	19,911	20,236	175	190
Nawan Kot New	32,527	35,331	200	400
Khairewala	10,893	10,721	306	230
Khairewala New	37,618	34,113	200	190
Chaubara	17,014	16,924	155	140
Shergarh	24,541	26,647	130	150
Shergarh East	15.521	12,914	70	90
Shergarh West	12,092	12,086	75	80
Total ...	217,703	217,163	1,587	1,920

Section D.—Mines and Minerals.

There are no mines in the *tahsil* nor does this tract produce any minerals of importance.

Section E.—Arts and Manufactures.

Cotton *khes*.

At Leiah a particularly excellent form of *khes* or checked cotton cloth is manufactured. Blue and white are the favourite colours, though red is also used. The cloth is of first rate texture and substance, and the woven chequer work is as neat and

CHAP. II-G. Means of Communication.

firm in execution as it is agreeable in effect. It is suitable for carpet cloths, bed covers, *pardas*, etc., and serves its original purpose of a cold weather wrap as well as any cotton fabric could be expected to do.

Blankets. Leiah is also noted for the excellent quality of its thick and well-felted blankets.

Ivory-carving. Of recent years ivory-carving has been carried on as a small industry by a few artisans. The work shows considerable skill and neatness of execution; coloured designs are usually combined with carving. The manufactured articles consist mainly of bracelets, rings, studs, scent bottles, pepper and salt castors.

There are no factories nor mills, nor any other industries deserving of notice. As elsewhere in the province every large village has its local artisans who can supply the cotton and woolen fabrics, leather goods and all the implements of husbandry which the rustic peasant requires.

Section F.—Commerce and Trade.

There is nothing of commercial interest to record and both exports and imports are of very secondary importance. The opening of the Railway in 1886 has practically killed the river traffic, and the surplus grain is now taken almost exclusively by train to Multan and Karachi. The sheep owners of the Thal sell their wool mainly to Hindu middlemen at Chaubara and Nawan Kot who export it by camel across the Thal to Multan.

Section G.—Means of Communication.

Railway. The Sind-Sagar Railway opened in 1886 traverses the *tahsil* from north to south along the dividing line between the Kachhi and the Thal, and provides the main means of communication both for passengers and goods. There are stations at Karor, Doratta, Leiah, Jaman Shah and Kot Sultan and flag station at Sadan Sawaya.

Roads. Except for short stretches within the Municipal limits of Leiah and Karor, there are no metalled roads at all in the *tahsil*, and in fact the only road really deserving the name is the main Mianwali-Muzaffargarh Road which follows the line of the railway. All other roads are nothing but glorified camel tracks. In the Kachhi the annual inundations and frequent creeks render good roads impossible, while in the Thal the sandy nature of the country produces a similar result; but as there is absolutely no wheeled traffic in the whole *tahsil*, and camels are universally used

CHAP. II-G. Means of Communication.

for the conveyance of both men and goods, the absence of good roads causes little inconvenience. The more important lines of traffic are shown on the map attached to this volume.

Ferries.

There are six ferries across the Indus as follows —

Name of ferry.	Eastern side.	Western side.
Kahiri	Bet Bakhshida ...	Kahiri (Dera Ismail Khan).
Bukhara	Rakhwan	Bukhara (ditto).
Fatteh Khanwala or Nutkani.	Nurewala	Fatteh Khan (Dera Ghazi Khan)
Mor Jhangi	Nangi Lohach	Mor Jhangi (ditto).
Ghali	Bakhra	Ghali (ditto).
Langa	Bet Dabli	Basti Habib (ditto).

These ferries are under the control of the *trans*-Indus districts.

The rates of passage are as follows :—

		Rs.	A.	P.	
Cattle, horses or donkeys	... ...	0	1	6	each
Camels	... ...	0	4	0	"
Persons	... ...	0	0	6	"

Rest-houses.

Rest-houses exist at Karor, Leiah, Kot Sultan and Chaubara, for details about which the reader is referred to Table No. 29 in Part B of this volume. There is no public dâk bangalow.

Encamping-grounds.

There are military encamping-grounds in charge of the Public Works Department at Kot Sultan, Leiah, Doratta, Karor and Jharkal.

Saráis.

There are two *saráis* only in the *tahsil*, one at Leiah in charge of the Municipality and the other at Karor in charge of the District Board. A private *sarái* built by Harjas Rai also exists at Leiah.

Post and telegraph offices.

There are sub-post offices at Leiah and Karor, and branch offices at Kot Sultan, Shahpur, Chaubara, Nawan Kot and in the Leiah bazar.

The Leiah sub-office is a combined post and telegraph office and is the only telegraph office under the Postal Department in the *tahsil;* there are railway telegraph offices at the stations

CHAP. II-H.

Famine.

Post and Telegraph offices.

The Chaubara and Nawan Kot branch offices are attached to the Bhakkar office and are in the charge of the Superintendent, Sind Sagar Division, whose head-quarters are at Jhelum. The remaining post offices are in the charge of the Superintendent, Multan Division.

Section H.—Famine.

Cultivation depending entirely upon irrigation in one form or other, the *tahsil* is practically immune from famine.

The agricultural population of the Thal depends upon their wells, and the sheep and camel owners move elsewhere when pasturage fails.

In the Kachhi everything depends upon the inundations of the Indus and these are rarely so deficient as to cause widespread scarcity and want.

CHAPTER III.—ADMINISTRATIVE.

Section A.—Administrative Divisions.

Sub-Divisional Officer.

The Leiah *tahsil* forms a sub-division of the Muzaffargarh district and is in charge of an Assistant or Extra Assistant Commissioner as Sub-Divisional Officer.

This officer performs executive, criminal and civil functions and is also the Revenue Assistant for the *tahsil.*

Tahsíldárs and *náib tahsíldárs.* Revenue staff *kánúngos* and *patwáries.*

He is assisted by a *tahsíldár* and two *náib tahsíldárs.*

For revenue purposes the sub-division is composed of five circles with a field *kánúngo* in charge of each and one office *kánúngo* at the *tahsil* head-quarters. The village revenue staff consists of 60 *patwáries* and 3 *náib patwáries.*

Police.

For police purposes the sub-division constitutes one circle in charge of an Inspector: it is divided into the four police stations of Leiah, Karor, Kot Sultan and Chaubara with a sub-inspector in charge of each.

Zails.

The number of *zails* was reduced from 13 to 9 at the recent Settlement and the present (1916) holders of the office are as follows:—

Name of *zail.*	Present *zaildár.*	Present grade.	Date of first appointment.	Prevailing tribe of *zail.*
Karor ..	Ghulam Sarwar Shah ...	1st	1908	Jat-Sinwagh.
Leiah ...	Mahr Allah Bakhsh ...	1st	1908	Jat-Sumra, Thind & Dullr.
Kot Sultan ...	Hamid Khan ...	1st	1908	Jat-Suyia.
Naushera ...	Khan Shadu Muhammad Khan.	2nd	1908	Biloch-Aliani.
Wara Sahiran ...	Muhammad Khan ...	2nd	1908	Jat-Sihar.
Nawan Kot ...	Arura Mal ...	2nd	1908	Jat-Bhabbi, Biloch-Magassi.
Bet Dabli ...	Jindwadda Shah ...	3rd	1916	Biloch-Gurmani.
Marhanwali ...	Ahmad Shah ...	3rd	1908	Jat-Samtia and Khokhar.
Sarishta ...	Allah Bakhsh ...	3rd	1915	Jat-Kalasra.

Zail boundaries are indicated on Map A attached to this volume. There are three grades of *zaildár*, remunerated at the rates of Rs. 200, Rs. 150 and Rs. 100 respectively. CHAP. — Civil and Criminal Justice.

The total number of *sufedposh* and other *inám*-holders is 53. The number of *lambardárs* is 250. *Sufedposh* and *lambardárs.*

Section B.—Civil and Criminal Justice.

The magisterial staff consists of the Sub-Divisional Magistrate with 1st class powers, the *tahsildár* with 2nd class powers and the two *náib tahsildárs* with 3rd class powers. In addition there is a Bench of Honorary Magistrates sitting at Leiah: the members are Khan Shadu Muhammad Khan and Gosain Udho Bhan. The Bench was constituted in 1910 and exercises 3rd class powers, with jurisdiction over the whole *tahsil*. In March of this year (1916) Rai Bahadur Tilok Chand, I.S.O., has been invested as Honorary Magistrate with 1st class powers: he deals at present chiefly with cases from the Dera Din Panah *thana*, outside the sub-division. Magisterial staff.

The Sub-Divisional Officer exercises the powers of a 1st class Munsif and there is also a 1st class Munsif permanently located at Karor. In addition R.B. Tilok Chand, I.S.O., has just lately (1916) been made an honorary Munsiff, 1st class. Civil Courts.

There are two pleaders and one *mukhtár* practising at Leiah and one pleader and two *mukhtárs* at Karor. The Bar.

Khan Shadu Muhammad Khan is honorary Sub-Registrar for the *tahsil* and the *tahsildár* is Joint Sub-Registrar. Registration.

The Sub-Divisional Officer exercises the powers of an Assistant Collector, 1st grade, while the *tahsildár* and *náib tahsildárs* have 2nd grade powers. Revenue Courts.

The Frontier Crimes Regulation, III of 1901, is in force over the whole *tahsil* and proves a useful weapon in checking crime. Councils of Elders are appointed by the Deputy Commissioner from among the most prominent men of this *tahsil* and Sanawan. Frontier Crimes Regulation.

The working of the Regulation is shown in Table No. 55 in Part B of this volume.

Crime is nominally confined to cattle stealing, intrigues and disputes over women, petty burglaries and assault cases. Murders and other serious crimes of violence are not common Cattle lifting is regarded more as a sport than a crime, and the physical features of the tract make it hard to repress in the Indus valley. Crime.

Section C.—Land Revenue.

Pre-British land revenue system. System under Muhammadan rule.

Very little is known of the land revenue system under Muhammadan rule. The tradition is that eight annas per *path* of produce was taken, increased by Nawab Muhammad Khan, Saddozai, to one-eighth *batái* at the beginning of the last century, and subsequently to from one-fourth to one-sixth. The wells paid a fixed assessment of Rs. 5 to Rs. 10. His chief agent in collecting the revenue in the Thal was Goarawara Arora named Narain Das, who used to make a cash collection fixed on the capacity of each well.

Under Sikh rule, *bhaoli* system in the Kachhi.

Under the Sikh Government this system was maintained until Diwan Sawan Mal in 1841 introduced the *bhaoli* system into the Indus valley lands. Under this system the produce was weighed, and the people themselves fixed the cash price at which it was redeemed. Any tendency to fix low prices was corrected by a fluctuating cash rate or *zabtiána* per *path* of produce. In addition to the *zabtiána, tikk* and other miscellaneous cash cesses were levied. Tobacco and sugarcane paid cash rates On indigo a share of the produce was taken, but a cash rate per maund was also levied; it then grew in the Paharpur circle. This system of collection prevailed until the fist Summary Settlement of 1850. In actual practice in the ordinary Indus valley villages the demand was not heavy; turnips and other fodder crops rarely paid anything, while a comparatively light rate of one-seventh of the produce was taken on the wells and one-fifth on *sailab*. From the people's own account it would appear that the system worked fairly well on the whole.

Diwan Sawan Mal's system in the Thal.

Diwan Sawan Mal seems to have made special efforts to colonize the Leiah Thal, and granted very favourable terms to those who built wells there. It is always said in the Thal that he never took '*kankut*,' but had a cash assessment, of which the basis was that an ordinary well paid Rs. 5 at *kharíf* and Rs 7 at *rabi*. The system is summed up in its name—"*sat panch bárah*." But he did not debar himself from taking full advantage of good seasons, for when the crops were above the average he took a fee called, either "*názar makadam*" or, with ominous pleasantry, *shukarána*." He also seems to have taken *zabti* rates on such crops as tobacco and cotton; there were besides a number of miscellaneous cesses such as the '*tirni rásán*" (on cattle) and *tirni shutrán'* (on camels) On the whole, though the *zamíndárs* always refer to the rule of Sawan Mal as if it were a Saturnian age, in which crops were always good and revenue was always light, the demand cannot really have been at all mild, and the grateful

memory of the Diwan's rule is probably due to the fact that the revenue was assessed with supreme knowledge of the local conditions, and was modified on the spot to suit the requirements of the seasons.

CHAP. III-C.

Land Revenue.

Summary Settlements.

After the British annexation there followed a series of Summary Settlements.

The Leiah *tahsil* was summarily settled by the same officers and in a similar manner to the Bhakkar *tahsil*.

These settlements were—

Captain Hollings' in	...	...	1850
Mr. Simson's ,,	...	...	1855
Captain Mackenzie's ,,	...	...	1862

Captain Hollings' Settlement.

Captain Hollings took a very sanguine view of the circumstances of the tract which he calls an "agricultural California"

He started out with the view that the country formed an estate belonging to Government "to the full and undivided possession of which there was no one to dispute the smallest fraction of their right." He afterwards discovered that there were in some parts persons styled *zamíndárs*—the present *ála máliks*—who had for some time enjoyed the privilege of hereditary farmers. With some of these he eventually came into personal contact and tried to make a settlement. As a preliminary however he insisted that each *zamíndár* should state the extent of his *zamindári*, and the amount he thought he ought to pay, dividing the land into three different kinds of soil and defining the dates on which the instalments were to be paid The *zamíndárs*, though willing to farm their villages at 25 per cent. in excess of the collections under the Sikh Government, absolutely declined a *bigháwár* assessment on Captain Hollings' terms. Unfortunately the system of farming had been condemned by the Board of Administration as worse than even *khám* management. Captain Hollings accordingly refused the offer of the *zamíndárs* and reported the matter for the orders of the Board, suggesting that for the present the district should be held in *khám tahsil*, and animadverting strongly on the stupidity of the *zamíndárs*. Eventually under the Board's instructions Captain Hollings succeeded in making a Settlement for three years, the demands being based on the average revenue for the three previous years (1847-49). This Settlement was reported in June 1850. Captain Hollings assessed the *tahsil* as follows—

				Rs.
Land revenue	...	...	...	1,09,909
Tirni	...	...	...	18,587
	Total	...	...	1,28,496

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Mr. Simson's Settlement.

He reduces the assessment.

Mr. Simson made no further classification of soils than into *hal-cháhi*, *Nasheb-cháhi* and *sailála*. There was no *báráni* cultivation in the *tahsil*. He found that Captain Hollings' assessment was rather heavy and there was in consequence a certain amount of outstanding balances. He reduced the assessment to —

			Rs.
Land revenue	...	...	1,03,765
Tirni	...	...	19,028
Total	...	...	1,22,793,—a decrease of five per cent.

The new assessment breaks down.

Mr. Simson reported this Settlement in 1855 and it was sanctioned for three years. Its fiscal history is not happy and in 1862 Captain Mackenzie wrote of it :—

Further reduction in 1858-59

" Mr. Simson, Deputy Commissioner, seems to have done everything in his power towards placing the revenue on a proper basis, and to have started the Settlement with every reason to hope for success, etc. Still his assessment, though a reduction from its predecessor, broke down. Successive District Officers, the Commissioner and Financial Commissioner had all recorded unfavourable opinions of its state and working. In 1858-59 it had to be reduced by Rs. 13,706 solely on account of abandoned cultivation. Even then collections were difficult and balances continued to accrue."

Third Summary Settlement by Captain Mackenzie.

In 1860 third Summary Settlement was commenced by Lieutenant Parsons and after passing through the hands of Captain Smyly was completed in 1862 by Captain Mackenzie.

The condition of the *parganah* as gathered from the statistics of this Settlement is thus described by Captain Mackenzie :—

State of the *tahsil.*

" The cultivation had again been measured, a comparison showed the cultivated area to be 4½ per cent. less than the area of 1854. And this was two years (very bad agricultural years, however) after the remissions above noted, by which time, and after such liberal treatment it might have been expected that absentees would have returned and things recovered themselves. Everything tended to show the necessity *primâ facie* for further reduction. A closer view of the rate of pressure of taxation per acre and per head of population confirmed the impression."

The rate on cultivation was Rs. 1-6-11 per acre. The total taxation, land revenue and *tirni*, pressed on the population at the rate of Rs. 1-5-0 per head. These rates Captain Mackenzie considered too high for the capacity of the *parganah*, even supposing the existence of general prosperity instead of the reverse.

CHAP.III.-C. — Land Revenue. — Captain Mackenzie's assessment: a large decrease.

The result of Captain Mackenzie's Settlement was a very considerable reduction of the land revenue in most of the villages of the *parganah*, though in some there was an enhancement. The *jama* assessed by Captain Mackenzie was as follows :—

			Rs.
Land revenue	...	...	78,495
Date revenue	...	...	800
Tirni	...	...	16,468
Total	..	...	95,763

This gives a decrease of 29 per cent. on Mr. Simson's assessment.

Increase of cultivation up to 1872.

Captain Mackenzie's Settlement was for 10 years but continued in force up to the year 1878. It was undoubtedly light and was followed by a great increase of cultivation, especially in the Nasheb, owing to which the incidence soon became exceedingly light. There have been no subsequent reductions on account of over-assessment and up to 1872 no difficulty was experienced in realising the demand. From 1872 to 1874 however there was a succession of seasons of injuriously high floods, and in addition to this there was a fall in prices. Most of the Nasheb villages suffered severely ; houses were washed down, wells fell in, grain and fodder were carried away and the lands generally, especially those which were well manured, underwent great deterioration. The result was a great falling off in the former prosperous condition of the *tahsil*. Under these circumstances the increase subsequently taken at the first Regular Settlement is much less than the increase the cultivated area would have warranted. The cultivated and fallow area by the First Regular Settlement measurements was 89 per cent. in excess of that at Captain Mackenzie's Settlement and 77 per cent. in excess of the area given by the Revenue Survey of 1857.

High floods in 1872-74 cause diminution of prosperity.

Comparison of areas of First Regular Settlement with those of Mr. Simson's Settlement.

In order therefore to show the real increase in the cultivated area it will be well to compare the areas of the Regular Settlement with those of Mr. Simson's rather than of Captain Mackenzie's Settlement The results of such a comparison with the areas of Mr. Simson's time are as follows :—

Well cultivation in the Nasheb had increased from 12,545 acres to 22,898 acres or 82 per cent. The total Nasheb cultivation, well and *sailába*, had increased from 33,420 to 89,108 acres

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or by 166 per cent. In the Thal the increase is small; the *Thalchái* cultivated area rose from 36,238 to 40,771 acres, an increase of 12 per cent. Altogether the arable area of the whole *tahsil* (cultivated and fallow) had increased from 81,675 to 155,334 acres or by 90 per cent.

Decreasing number of wells in the Thal.

During the regular settlement it was found that a great number of wells in the Thal had been abandoned owing to the fall in prices. The cost of oxen and for a Thal well is heavy, and when the price of wheat falls well cultivation, which at the best of times is not highly remunerative, is carried on almost at a loss, the margin of profit being so small that any adverse circumstances very soon necessitate the proprietor's throwing up his well altogether. The well cultivation existing at the time of the regular settlement was therefore hardly more than in Mr. Simson's time, but there was a much larger fallow and abandoned area, which could rapidly be brought under the plough should a rise in the price of agricultural produce afford the necessary stimulus.

Increase in number of wells in the Nasheb.

In the Nasheb the increase in cultivation is uniform over the whole tract, being nearly as large in the old Pakka villages along the Thal bank as in the river villages. The number of wells and *jhalárs* in the Nasheb had increased since Captain Mackenzie's time by 41 per cent. The number of working wells in the Thal had increased by 12 per cent.

Up to the regular settlement there had been but little change in the revenue demand for the *tahsil* subsequently to the last Summary Settlement. The alluvion and diluvion assessments gave a net increase of about Rs. 1,000 and there had been a small increase on account of villages transferred from Dera Ghazi Khan.

Average demand for the last five years of Third Summary Settlement.

The average demand, land revenue and *tirni*, for the last five years of the third summary settlement was Rs. 97,220; adding Rs. 800 for date revenue and Rs. 1,017 on account of *rakh* leases, the total revenue works out at Rs. 99,037.

In 1872 Mr. Tucker was directed to make a regular settlement of the district which he completed in 1879. Fluctuating assessments were introduced in the *sailáb* tracts, village boundaries were finally determined and Government *rakhs* demarcated in the Thal, and the arrangements for *tirni* were revised.

For detailed information the reader is referred to Mr. Tucker's voluminous Settlement Report.

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Average demand for the last five years of Third Summary Settlement.

The new demand compared with former assessments is as follows :—

Summary Settlement, 1852-54.	Summary Settlement, 1857-62.	Average demand for last five years of expiring settlement.	Regular Settlement, 1877-78.	Demand temporarily postponed.	Net demand by Regular Settlement.
122,798	95,763	99,037	129,215	2,872	126,343

The details of the new revenue are as follows :—

FIXED.				FLUCTUATING.		
Full *jama.*	*Abiána.*	On grazing lands.	Total.	By *sailába* rates.	By grazing rates.	Total.
29,717	9,673	10,585	49,975	68,734	5,122	73,856

Fixed and fluctuating total land revenue.	Revenue on dates.	Revenue from *rakh* leases.	Camel *tirni.*	Total revenue.
123,831	884	2,000	2,500	129,215

The amount temporarily postponed is on account of protective leases and progressive *jamas.* In many cases the increase on individual villages is very large and this is especially the case in many of the river villages where most of the cultivation had hitherto been unassessed. Although the rates put on these villages under the fluctuating system were exceedingly low, still the old *jama* was frequently trebled and quadrupled, while in some cases where the old *jama* was very small indeed the rate of increase was still higher. This was unavoidable and the lightness of the assessment made a progressive increase unnecessary. In almost all these cases however the villages in which these heavy increases were taken were previously held by *jagírdárs* or lessees taking in kind; and the grant of a *khatauniwár* settlement, even with the increased *jama,* was regarded as a boon by the proprietors by whom it was now to be paid in cash and who benefited by the abolition of *batái.* The increase in such cases did not in any way affect this class, though the loss of their

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Average demand for the last five years of Third Summary Settlement.

leases was of course felt by the farmers in spite of the cash *ináms* granted to many of them as a sort of part compensation. Mr. Tucker recommended a term of thirty years for the new settlement but it was sanctioned by Government for twenty years. The new assessment was introduced from *rabi* 1878.

Both the *rabi* and *kharíf* land revenue were each paid in two equal instalments falling due on—

Rabi ... { 15th June. 15th July.

Kharíf ... { 15th December. 15th January.

The distribution of the demand between the *rabi* and *kharíf* instalments varied as follows: —

Rabi ½ *Kharíf* ½	*Rabi* ⅔. *Kharíf* ⅓.	*Rabi* ⅓. *Kharíf* ⅔.	*Rabi* ⅗. *Kharíf* ⅖.	Miscellaneous.
4	35	3	54	17

In the Indus alluvial tract the instalments were generally *rabi* ⅔, *kharíf* ⅓. Of the villages shown as miscellaneous there were nine small *mauzas* in the Indus *bet* transferred from Sanghar, the revenue of which had hitherto been all paid at the *rabi*. As the people mostly belonged to Sanghar it was more convenient for them to pay the revenue in a single sum and the arrangement was continued.

The additional cesses realised upon the land revenue were local rates Rs. 8-5-4 per cent., schools Re. 1 per cent., roads Re. 1 per cent., post annas 8 per cent.

Description of the new assessment system.

A simple uniform system of fluctuating assessment was introduced into the whole *sailába* tract of the Kachhi. The actual cultivated area was to be ascertained year by year by a *girdáwari* carried out by the *patwáries* during the cold weather. The cultivated area was assessed for each village at a uniform rate fixed at settlement for each village. New cultivation (*nau ábád*) was charged at half rates for the first two years and thereafter at the full village rate. In addition to this wells were assessed at a fixed lump sum *abiána*; this *abiána* was based on the difference between the proposed *sailába* and *cháhi* rates. Thus in the Pakka circle the difference between the *sailába* rate of 14 annas and the *cháhi* rate of Rs. 1-8-0 being 10 annas the *abiána* rate was 10

annas per acre. The well lands of each village were assessed with an *abiána jama* more or less than that given by the circle rate with regard to individual circumstances. CHAP. III-C. Land Revenue.

Description of the new assessment system.

The *abiána jama* thus assessed was distributed by the people over all the wells and *jhalárs* of the village.

The rules for masonry wells and for *jhalárs* and *kacha* wells were not quite the same.

If a masonry well fell owing to floods or was carried away by the Indus, the *abiána* revenue assessed on it was remitted ; if a portion of a well was washed away, a corresponding reduction was made in the *abiána* unless there were other contiguous lands belonging to the well proprietor to which the well irrigation could be extended. Unlike the *sailába* revenue the *abiána* had to be paid whether the well was working or not, and no reduction was made on the ground of the well lands being uncultivated.

The profit from new masonry wells was to go to the *zamíndárs* of each village, Government taking nothing additional during the term of Settlement. When *abiána* was remitted on a well falling in, if the well was re-established the old *abiána* was charged unless a special order for exemption under a protective lease was obtained. The system on which *jhalárs* were assessed to *àbiána* was the same as for masonry wells.

The average rate assessed on *sailába* cultivation for the *tahsil* was 12 annas 4 pies.

The well *abiána* of the *tahsil* amounted to Rs. 9,673 and fell at the rate of Rs. 6-13-0 on 1,416 wells and *jhalárs*. The incidence of the *abiána jama* on the *cháhi* area of the *tahsil* was 6 annas 9 pies. Most of the wells were in the Pakka circle where the *sailába* rate was higher than the *tahsil* rate ; on an average the *sailába* rate on well lands was 13 annas in the *tahsil*. Adding the *abiána* rate the rate per acre on *cháhi* cultivation was Rs. 1-3-9. The total assessment of the Kachhi lands of the whole *tahsil* worked out at Rs. 78,407.

Working of the First Regular Settlement

he riverain tract was assessed at admittedly light rates and the Settlement therefore here proved on the whole satisfactory. The well *abiána* however proved too inflexible and in some cases too high ; in other respects the fluctuating system worked well, but in spite of Mr. Tucker's careful differentiation between villages it did not fully meet the constant changes in the quality of the land in the nature of the cropping. Moreover the only

Marked fairly will in the Kachhi.

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remissions on the acreage *sailába* rate were limited to crops which had entirely failed—*tukhm sukht*. As the entry had to be attested by a superior revenue officer the area so recorded was very small and in this respect the system lacked sufficient elasticity; towards the year 1898 also the rule had been worked with increasing harshness and the cultivated area practically coincided with the area assessed to revenue.

Broke down in the Thal.

In the Thal the assessment broke down after the cycle of bad years from 1886, and when Colonel Wace, Financial Commissioner, visited this tract in 1889 he found it in a state of great distress.

Out of a total of 2,003 wells, 833 had been abandoned and others were only partially working; the well oxen and cows had practically disappeared and the greater part of the sheep were dead.

He noted that the sanctioned arrangements made no provision for such prolonged drought and he found himself obliged to propose what was practically a new Settlement. Government agreed that for the future the recoveries of grazing revenue should be based on a rough enumeration of the cattle, "the object being to recover the fixed revenue only in good years and such sum as the local officers should think fit in bad years." As regards the revenue on wells it was agreed that a fluctuating system should be introduced, the essence of which was that Government should take the revenue on all new wells and forego that on all wells or parts of wells which had fallen into disuse.

Instructions issued by Financial Commissioner in 1892.

Eventually in 1892 the Financial Commissioner drew up a set of instructions authorizing the revision of the revenue of a well or share of a well which had been abandoned and the re-imposition of the same *jama* when the well was again brought into use.

These instructions were acted upon, but in effect the revenue not collected under these rules remained under suspension.

The grazing assessment was also heavy and inelastic, and portions of the demand had to be suspended from time to time. The elasticity thus introduced into the Thal proved of inestimable benefit, but that tract had hardly recovered its old prosperity by the time that the second Regular Settlement was made; the number of wells and the *cháhi* area were less than at the beginning of Mr. Tucker's Settlement; the population was much the same as 20 years before and it was doubtful whether cattle had increased in number.

For the whole *tahsil* the total suspended revenue amounted

to Rs. 1,30,324 besides some additional sums remitted from time to time and the whole total had to be struck off the demand at the introduction of the new assessment. CHAP. III- Land Revenue.

The Second Regular Settlement was commenced in 1898 by Captain Crosthwaite and the new assessments were introduced in the *kharif* of 1903. The whole Indus Valley of the Dera Ismail Khan District was assessed by Captain Crosthwaite, while the whole Thal tract of Leiah and Bhakkar was in charge of Mr. Hailey, Assistant Settlement Officer. Pandit Hari Kishan Kaul, Rai Bahadur, who had already begun the Settlement of the northern *tahsils,* was appointed to wind up the operations upon the death of Captain Crosthwaite in 1905. Second Regular Settlement, 1898—1903.

With the exception of the gardens in the Powah near Leiah town the whole *tahsil* was now given a fluctuating assessment, but the fluctuating system in force in the Kachhi was replaced by one varying with the class of crops sown. Whole *tahsil* given fluctuating assessment.

In the Kachhi under Mr. Tucker's system all land sown in any year paid the same rate whatever the kind of crop might be. This rate proved much too light for wheat and the more valuable crops, and much too heavy for the inferior crops. It was now held that a much fairer distribution of the demand would result if crops were divided into classes and each class charged at a rate proportioned to its value.

Uniform rates were adopted for the inferior classes throughout this *tahsil,* but the rate on the first class of crops varied and was imposed with regard to the existing condition of the villages and to the rate of assessment they had been accustomed to pay. In this manner a classification of villages was made by the Settlement Officer; villages of similar quality were grouped together and generally speaking villages lying under the high bank were placed in the higher groups, while those near the main streams and exposed to destructive floods or having a large proportion of sandy land were more leniently dealt with. New system, based on class of crops grown, introduce into the Kachhi.

The provision was also made that while during the currency of the Settlement the Collector should have no power to raise the rate charged on the first class crops of any village he should have the power with the Commissioner's sanction to reduce the rate for any village which showed deterioration since Settlement. In the case of *sailáb* crops assisted to maturity by well or *jhalár* irrigation, an additional rate varying from 2 to 8 annas per acre was assessed on the richer wells for first class crops only In

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their case too the Collector could lower but not raise the rate for any well.

New system, based on class of crops grown, introduced into the Kachhi.

Under the previous settlement newly broken-up land was charged only half the village rate for the first two years. But under the new system this concession was considered unnecessary and was abolished, for the inferior crops generally grown on new land of poor quality were placed in the third class and so assessed at a low rate, while remissions would be made for any failure.

Classes and rates.

The classes and rates were as follows :—

CIRCLE.	CLASS I. Wheat, sugarcane, chillies, fruits, tobacco, vegetables and spices.		CLASS II. All crops not in classes I and II.	CLASS III. *Jowár, massar,* peas and all fodder crops including turnips and carrots.	Additional rate on 1st class *cháhi-sailáb* crops on superior wells.	
		Rs. A. P.	Rs. A. P.	Rs. A. P.		Rs. A. P.
Pakka ...	Maximum	1 12 0	0 14 0	0 6 0	Maximum	0 8 0
	Minimum	1 4 0			Minimum	0 2 0
	Average	1 7 0			Average	0 1 0
Kacha ...	Maximum	1 10 0			Maximum	0 4 0
	Minimum	1 2 0			Minimum	0 2 0
	Average	1 6 0			Average	0 1 0

It remains to add that all rates were to be fixed in multiples of two annas per acre and no account was to be taken of anything less then a quarter of a *kanál*.

This system was applied to the whole of the Kachhi and to small portions of 13 villages of the Thal.

Kharába remissions.

It has already been noticed that the *tukhm sukht* system of the previous settlement had proved inadequate, rules were now introduced to grant graduated remissions on poor crops. The yields assumed at this settlement were taken as the standard for a normal or 16 anna crop, and *kharába* remissions were to be given as follows :—

If the crop did not exceed two annas ...	all
If the crop was over 2 and less than 4 annas ...	$\frac{3}{4}$
If the crop was over 4 and less than 8 annas ...	$\frac{1}{2}$
If the crop was over 8 and less than 12 annas ...	$\frac{1}{4}$

It was estimated that *kharába* allowances would average on *cháhi-sailáb* lands 2½ per cent. in the Pakka and Kacha, on *sailáb* lands 10 per cent. in the Pakka and 15 per cent. in the Kacha. CHAP. III-C. — Land Revenue.

The Thal system of assessment recently introduced into the rest of the district was now adopted in this *tahsil*. New system introduced into the Thal

In brief it is a compromise between the fixed and fluctuating systems and considered peculiarly suited to the conditions of the tract and the intelligence of the inhabitants.

The tract called for lenient treatment not only owing to the extraordinary vicissitudes to which it is liable but to the extremely laborious, expensive and precarious character of its well cultivation. Another reason for a lenient assessment was that the land-owners of the Thal had recently in a body agreed to surrender to Government a large part of their rights in the waste land in order to facilitate the construction of the great Indus Canal, a concession likely to result in a very large pecuniary profit to the State. It was further considered very desirable to encourage this sturdy healthy population to remain on in their old homes and not to desert them, as they had shown some tendency to do, for an easier but less healthy life in the river valley.

It was considered that the amount of the assessment was however of much less importance than the system on which collections were to be made. The people themselves desired a fluctuating system and it was held that after the experience of the past 20 years it was clearly the duty of Government to grant their request and to continue the system devised in 1892 which had worked on the whole so well since.

The main feature of the system was that the well or share in the well was treated as the unit for purposes of collection and land revenue was collected only from those wells or shares of wells actually working.

The Settlement Officer fixed a maximum assessment for each well at work or likely to be soon set at work to be paid in full only when the well was fully at work.

The future collections were to be determined by the following rules :—

(1) No assessment will be levied on a well which has not been working during the year or in (except the Powah or Dhaha) on which the total area under crop in the year is less than one acre.

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New system introduced into the Thal.

(2) When a well is held in defined shares and the land attached to the well is divided according to those shares no assessment will be levied on any share in the well holding which has not been cultivated during the year or (except in the Powah or Dhaha) on which the total area under crop in the year is less than half an acre. When no part of a share has been cultivated as *cháhi* but a part of it is cultivated as *báráni* land, no assessment shall be levied by Government, but it shall be treated as if it were *báráni* land for the purposes of the village *báchh*.

(3) When a well and the land attached to it are held jointly, the Settlement Officer will fix the area to be considered as representing the area under cultivation when the well is fully at work, and whenever an area equal to $\frac{1}{4}$, $\frac{1}{3}$, $\frac{1}{2}$, $\frac{2}{3}$, or $\frac{3}{4}$ of that area remains uncultivated a corresponding fraction of the assessment fixed for the well at Settlement shall be remitted.

(4) When wells are partitioned after settlement, the officer making the partition shall in his final order distribute the revenue of the well over the shares, and the collection of revenue will then be made under rule (2).

(5) Every well or share of a well at work during the year shall (unless protected by a certificate of exemption) be charged the assessment imposed on it at settlement; and if no assessment was imposed on it at settlement, the assessment shall be calculated at the rate of Rs. 9 in the Thal Kalan and Rs. 11 in the Jandi Circle for the well when fully working.

(6) The demand on wells shall be framed for the whole year after the *rabi* harvest and realised with the *rabi* instalment.

These rules were somewhat more liberal than those introduced in 1892, experience having shown that greater elasticity was required in order to meet the case of the poor land-owner who owns only a small share in a well and who found it difficult to pay the revenue when his share remained uncultivated.

Protective leases.

Frequent mention has been made of protective leases and some explanation is required of the system on which they are granted. The custom had always been to exempt new wells from revenue altogether for the first three years and to charge

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half *cháhi* rates for the next seventeen; in the case of old wells repaired the period had been three years free and seven years at half rates. At the Summary Settlement of 1862 a clause to this effect was entered in the village papers.

At the First Regular Settlement the previous provisions were modified. In the Kachhi the ordinary *sailába* rates were realised but the well was exempted from *abiána*, new wells for 20 years and old wells repaired for 10. In the Thal half *cháhi* rates were charged, while the periods were the same as in the riverain tracts.

At the Second Regular Settlement further modifications were made. In the Kachhi one-quarter of the total demand by crop rates was remitted, while if any additional *abiána* rate on superior wells was chargeable it was held in abeyance; the periods remained unchanged.

In the Thal a total remission of land revenue was allowed for such period as the Collector should determine, up to a maximum of 20 years for a new and 10 for a repaired well respectively.

Term of settlement.

The new assessments were introduced from the *kharíf* harvest of 1903 and the settlement was sanctioned for a period of 20 years, subject to the proviso in the Thal that it would expire on the construction of a perennial Indus Canal.

Comparison of financial results.

The following table gives details of the new assessment as compared with that of Mr. Tucker's settlement, omitting the camel *tirni* and *rakh* leases :—

Settlement.	Land revenue.	Grazing lands.	Rates.	Total.
	Rs.	Rs.	Rs.	Rs.
1st Regular Settlement ...	1,08,124	15,707	884	1,24,715
Demand immediately preceding new assessment.	1,19,563	14,768	799	1,35,130
2nd Regular Settlement ..	Fixed 58 Fluctuating Rs. 1,43,054	Fixed 6,554 Fluctuating Rs. 4,644	2,210	1,56,520

The final result was an increase of 25 per cent. over Mr. Tucker's settlement, and of 15 per cent. over the demand immediately preceding the new assessment.

CHAP. III-C.

Land Revenue.

Tirni before the First. Regular Settlement.

Until the first Regular Settlement villages had been assessed in addition to the land revenue with *tirni* based on the number of cattle belonging to each village. Cattle had grazed freely all through the waste without regard to village boundaries, while residents of other districts had been allowed to graze their cattle without paying anything for the privilege. The system of *tirni* assessment in force was fully described by Captain Mackenzie in a Memo. dated 8th June 1861.

A tax on cattle had been taken by the Sikh Government, and at annexation Captain Hollings made the assessment summarily by an addition of 25 per cent. to the receipts under the previous administration; but this Settlement worked badly.

In 18[illegible]2 the amount of the *tirni* revenue stood at Rs. 19,032. Captain Mackenzie took up the revision of the *tirni* assessment with that of the land revenue. He pointed out the tax as it existed was a poll tax on cattle and not one on grazing lands. He fixed the following general rates for the different sorts of cattle :—

	Rs.	A.	P.		Rs.	A.	P.
Male camels	1	8	0	Cows ...	0	4	6
Female ,, ...	2	0	0	Sheep and goats	0	0	0
Buffaloes	0	10	0				

In the actual assessment he varied the rates as necessary, and in distributing the *tirni* revenue among themselves the people were allowed to fix their own rates for each sort of animal. The rates on sheep were generally raised to one anna or more, the rates on other cattle being reduced.

The resultant revenue was Rs. 16,997 for the *tahsil.* In addition *muáfis* were granted and the *lambardárs* of each village were given exemptions on their own cattle up to 10 per cent. of the assessment on the cows and buffaloes of the village. It was intended that every year or every two or three years there should be a re-enumeration of the cattle of each village followed by a new distribution of the *tirni* revenue. This system however was never thoroughly worked. The objections to it when applied to the villages of the Thal Kalan are that the profits of cattle breeding are too fluctuating to admit of the cattle owners paying a fixed revenue for a long term of years, and also that an annual *bachh* though theoretically fair leads to fraud on the part of the *lambardárs* and to factious complaints on the part of the people.

CHAP. III-C.

Land Revenue.

Changes at the First Regular Settlement.

At Mr. Tucker's Settlement the question of the *tirni* assessment became involved with that of the demarcation of boundaries and the formation of new Government *rakhs* in the Thal waste. A reference is invited to Chapter II, section C.

Tirni replaced by an assessment on grazing lands, except for camels.

It was arranged that the grazing *jama* should cover only kine, sheep and goats, while camels were to be separately assessed. Cows, goats and sheep are generally the property of well owners and graze as a rule near where their owners live. Under the new arrangements therefore by which the *jama* was transferred from the cattle to the grazing lands these sorts of cattle would be grazed within the boundaries of their own or the immediately adjoining villages; and to effect this the *zamíndárs* would usually make some reciprocal arrangements. With camels however things are different and it is a special business to keep them. They cannot find suitable pasturage all the year round in the same place; in the summer they graze in the *jal* country and on *lána* in the winter and they require to be taken considerable distances in consequence according to the season. It would therefore be difficult for camel owners to make their own arrangements with the *zamíndárs* of all the villages through which they would pass. It was therefore decided to exclude camels from the new *tirni* rules, to lease the camel *tirni* for the whole *tahsil* to contractors and to allow camels to graze freely as before through the waste without regard to village boundaries. An arrangement of this sort does not interfere with the ordinary grazing of kine, sheep and goats, as camels browse principally on vegetation which the former do not touch.

Separate *tirni* for camels.

Total grazing *jama*.

The total grazing *jama* of of the *tahsil* excluding camel *tirni* was a fixed *jama* of Rs. 10,585 in the Thal and a fluctuating *jama* of Rs. 5,122 in the Kachhi; total Rs. 15,707. It was arranged to lease the camel *tirni* to contractors year by year, and these contractors were to collect at fixed rates for all camels grazing within the *tahsil*, whether owned by residents or persons from other districts. Such persons of neighbouring districts as graze their camels only in the border *rakhs* would alone be exempted; for instance Jhang men who grazed their camel only in the Nawan Kot and Khairewala *rakhs* would pay to the *rakh* lessees but not to the general camel *tirni* contractors. This is fair as these people already pay *tirni* in their district: if, however, they grazed in village lands outside the *rakhs* they would pay at the same rates as residents.

The rates fixed were the same as were fixed for the Multan district, *viz.*, Rs. 1-8-0 for female camels (*dáchis*) and Re. 1 for

CHAP. III-C. Land Revenue.

male; these rates were to be charged on all animals a year old and upwards; below one year they were to be exempt; and camels grazing in the *tahsil* for less than six months were to pay half rates only.

Revenue from camels' *tirni*. *Tirni muáfis* and exemptions abolished.

The camel *tirni* gave a total revenue of Rs. 2,792. The old exemptions in favour of *lambardárs* were abolished, and *tirni muáfis* shared the same fate, cash *ináms* being granted to the holders for their lives only.

To recapitulate, villages in the Kachhi having grazing lands in the Thal had paid *tirni* until the First Regular Settlement.

Second Regular Settlement.

The preferable system of a small assessment on the grazing lands was then introduced and the rate fixed was Rs. 3-8-0 per 100 acres, the villagers collecting their own grazing fees. Camels were excluded from these arrangements and paid a separate *tirni*. The same arrangements were continued at the Second Regular Settlement with a few modifications. The same rate was maintained for the Kachhi. For the Thal a maximum demand was fixed for each village on the basis of an average rate of 12 annas per 100 acres; with this was lumped the assessment of such patches of *báráni* cultivation as were scattered about, the charge on which was at the rate of 4 annas per acre. This lump assessment on waste and *báráni* land was to be realised only in good years and was subject to remission in bad.

The only change made in the camel *tirni* was the reduction of the rate on female camels from Rs. 1-8-0 to Rs. 1-4-0.

But in all three cases -- in the Kachhi and Thal grazing land assessments and in the camel *tirni*—the important provision was made that the Collector should be empowered, subject to the control of the Commissioner, to remit in a year of drought or murrain such portion of the maximum demand as he should think necessary. In other words there were to be remissions in place of suspensions. The result was a considerable reduction from Mr. Tucker's assessment.

Date revenue.

Scattered date groves are to be found at intervals all along the older portion of the Kachhi.

Under native rule date groves were generally considered the property of Government which took the whole produce. At annexation the date produce of the *tahsil* was leased in the lump to contractors year by year. The contractors allowed by custom a small share, generally a tenth, to the proprietors of the land on which the groves were situated. This system remained in force

until 1862 when it was arranged to lease the produce for the term of Settlement to the land proprietors and this system remained in force up to the First Regular Settlement. The date revenue was then assessed on the land proprietors; in cases where trees were owned independently of the land on which they stand the Settlement was made with the tree owners. CHAP. III-E. Local and Municipal Government. Date revenue.

The number of date trees and the *jama* assessed at the First Regular Settlement were—

Number of trees.			Former Assessment.	New Assessment	Rate per female tree.
Male.	Female.	Young.			
					Rs. A. P.
7,633	12,921	3,717	800	884	0 1 0

The policy thus adopted led to a considerable increase in date cultivation.

At the Second Regular Settlement a lower rate of assessment was introduced and female trees were now charged 9 pies in this *tahsil*. At the same time no assessment was made on villages where the female trees were not numerous enough to give a *jama* of 10 rupees. The resultant revenue was Rs. 2,210.

Section D.—Miscellaneous revenue.

There are three licensed premises only in the *tahsil* for the sale of exciseable goods, situated at Karor, Leiah and Kot Sultan. Each of the three are licensed to sell opium, drugs and country spirits. Excise.

Table 43 in Part B of this volume shows the number of income-tax payers and the amounts realised annually since 1890-91. Income-tax.

Section E.—Local and Municipal Government.

The Leiah *tahsil* is represented on the District Board by ten members: two of these are officials, the Sub-Divisional Officer, and the *tahsíldár*; the remaining eight are nominated out of the principal men of the *tahsil* and are usually *zaildárs*. The activities of the District Board extend to the up-keep of the following works—all main roads and roadside avenues, Leiah Veterinary Hos- District Board.

CHAP. III-E. — Local and Municipal Government. — District Board.

pital, Karor Hospital and Middle School, cattle-pounds at Leiah, Karor, Kot Sultan and Chaubara, Chaubara rest-house, maintenance of the Leiah and Karor provincial rest-houses, garden and date plantation at Leiah and 24 primary schools.

In addition the Board contributes towards the Leiah Municipal Middle School and the Leiah Municipal Hospital and aids 9 indigenous village schools.

Municipalities

Leiah and Karor are the only municipalities in the subdivision : Kot Sultan had a short-lived existence as a municipality between 1874 and 1879.

Leiah.

Leiah was constituted a municipality in 1873. The committee consists of the following members :—

Ex-officio.	Nominated.
Sub-Divisional Officer, President.	Rai Bahadur Lala Tilok Chand, I.S.O., Vice-President.
Tahsildár, Leiah, or in his absence the senior *náib tahsildár* present at Leiah.	Mahr Allah Bakhsh.
Assistant Surgeon, Leiah.	M. Ghulam Nabi.
The District Inspector of Schools, or in his absence the Head Master of Municipal Board School, Leiah.	Chaudri Mehr Chand.
	Chaudri Jesa Ram, Arora.
	Gosain Udhe Bhan, Honorary Magistrate.
	Hakim Ghulam Nabi.
	Sheikh Ghulam Nabi.
	Lala Fateh Chand.
	Qazi Muhammad Aba Bakkar.

Nominated members sit for three years and are eligible for re-nomination : they are nominated by the Deputy Commissioner. Tables at the end of this volume show population, vital statistics and income and expenditure. Octroi furnishes the main source of income. The population at the last census 1911 was 8,173, of whom 3,367 were Hindus and 4,562 Muhammdans. A steady increase in population is discoverable from the figures for previous enumerations and the town is still growing.

CHAP. III-E.

Local and Municipal Government.

Leiah.

The main heads of income and expenditure during the past year 1914-15 were—

Income.		Expenditure.	
	Rs.		Rs.
Octroi	... 12,942	Administrative staff	937
Miscellaneous income ...	... 4,496	Octroi staff	1,735
Government grant for education	... 456	Conservancy staff	1,803
District Board grants—		Public Works	2,965
(a) Education ...	... 792	Education ...	5,35
(b) Medical ...	.. 954	Medical	3,067
		Miscellaneous	1,986
Total	... 18,730		
Opening balance ...	... 17,381	Total ...	18,228
GRAND TOTAL	... 36,111		

The municipality maintains a flourishing Anglo-Vernacular Middle School, two girls' schools and a good hospital.

Karor was constituted a municipality in 1874. The committee consists of the following :— Karor.

Ex-officio.	Nominated.
Sub-Divisional Officer, President.	Rai Mul Chand, Vice-President.
Tahsíldár, Vice-President.	Ghulam Sarwar Shah, *zaildár*.
Sub-Assistant Surgeon.	Bhagat Jodha Ram.
	Chaudhri Godi Ram.
	Jamman Shah.
	Jahan Pir Shah.
	Sher Muhammad Shah.
	Bh. Jaswant Singh.

Unofficial members are nominated by the Deputy Commissioner and sit for three years after which they are eligible for re-nomination.

CHAP. III-F. — Public Works.

Tables at the end of this volume show population, vital statistics and income and expenditure.

The population of the town at the last census (1911) was 3,503, of whom 1,858 were Hindus and 1,606 Muhammadans. A comparison with enumerations indicates a steady increase and the town is still growing.

The main heads of income and expenditure during the past year 1914-15 were :—

Income.	Rs.	*Expenditure.*	Rs.
Octroi	6,200	Administrative staff ...	949
Government grant for education.	378	Octroi staff ...	1,246
District Board grant for medical.	700	Conservancy staff ...	731
Miscellaneous income ...	436	Public Works ...	1,082
		Education	695
		Medical	1,598
Total	7,714	Miscellaneous ...	1,961
Opening balance ...	7,957		
GRAND TOTAL ...	15,671	Total ...	8,262

The municipality maintains two girls' schools. The hospital has recently been taken over by the District Board.

A flourishing vernacular middle school is maintained by the District Board to which the municipality contribute an annual grant: previous to 1914 the school was only of the primary denomination and maintained by the Committee.

Until 1908 the Lal Isan fair was managed by the Committee but since then it has been taken over by the District Board and the Committee merely contribute Rs. 50 annually to the Board for the expenses incurred.

Section F.—Public Works.

Public works in the *tahsil* comprise—

(1) the Sind-Sagar Railway opened in 1886, with stations at Karor, Doratta, Leiah, Jaman Shah and Kot Sultan

and a flag station at Sadan Sawaya. A Permanent Way Inspector is stationed at Leiah. There are also Railway rest-houses at Leiah and Karor:

(2) the *tahsil* buildings, judicial lock-up, police station, post and telegraph office and rest-house at Leiah;

the police station, rest-house and Munsiff's Court at Karor;

the canal rest-house and the police station at Kot Sultan;

the police station at Chaubara.

(3) A short stretch of the Kot Sultan Canal which is in charge of the Canal Sub-Divisional Officer at Kot Addu.

Section G.—Military.

Practically no recruiting is done in the Leiah *tahsil*.

There are five camping-grounds in the *tahsil* and they are under the Public Works Department:—

(1) Jharkal, (2) Karor, (3) Doratta, (4) Leiah, (5) Kot Sultan.

The following remarks appear in the Route Book:—

(1) *Jharkal, size* 110×110 *yards.*—A village; supplies on notice; abundant good water from wells in vicinity of village, site for which is east of and close to village; at Chuni 7 miles the lower road joins the main road, which is very sandy.

(2) *Karor, size not given.*—A small town; supplies on notice; plentiful good water from wells in vicinity of camping-ground, small site for which is north-west of and close to Railway Station; country sandy, but fairly well cultivated; road 24 feet wide, unmetalled and heavy in places.

(3) *Doratta, size* 230×120 *yards.*—A small village; supplies on notice; plentiful good water from wells in vicinity of camping-ground which is east of road and close to village; country and road as in last stage.

(4) *Leiah, size* 240×110 *yards.*—A large town; situated on a small branch of the Indus about 11 miles east of main stream; supplies abundant; plentiful good water from wells on and near camping-ground which is about one mile south of Railway Station; country and road as above

(5) *Kot Sultan, size* 18,810 *square yards.*—A village; supplies on notice; plentiful good water from wells in vicinity of camping-ground, site for which is close to village; country and road as before.

CHAP. III-I.

Education and Literacy.

Section H.—Police and Jail.

The staff of the regular police and village *chaukídárs* is as follows :—

Station.	Sub-Inspector.	Head Constables.	Constables.	*Chaukídárs.*
Leiah *thána*	1	2	11	66
" city police	...	1	10	...
" treasury guard	...	1	4	...
" judicial lock-up guard ...	...	1	8	...
Karor *thána*	1	2	11	43
Kot Sultan *thána*	1	2	11	42
Chaubara *thána*	1	1	8	11

The following table shows the working of the police, the figures being the average for the past five years :—

Thána.	Number of cases reported.	SENT UP FOR TRIAL.		CONVICTIONS.	
		Cases.	Persons.	Cases.	Persons.
Leiah	131	47	87	34	59
Karor	76	32	47	24	30
Kot Sultan ...	60	27	50	22	36
Chaubara	21	8	26	3	6

Section I.—Education and Literacy.

Table No. 50 in Part B of this volume gives statistics of literacy in the sub-division. The percentage of literates to the whole population at the 1911 census was only 3·6. The tract is very backward in education, and progress is materially retarded by the difficulty of imparting instruction to a population scattered in countless hamlets over the country. There are two middle schools in the Sub-division at Leiah and Karor, maintained respectively by the municipality of Leiah and the district board. The former is an Anglo-Vernacular School with an average daily

attendance of 189 students including 46 boarders: the present buildings were erected in 1910, a new boarding-house being added in 1914. The district board contributes to its maintenance. The Karor school is a Vernacular Middle School with an average daily attendance of 153 students, including 22 boarders: this school used to be a Municipal Primary School, but it was taken over by the district board in 1914 and converted into a middle school: the Karor Municipality contributes towards its maintenance. There are 24 district board primary and 9 aided indigenous schools in the *tahsil,* their location is indicated on the map at page . CHAP. III-J. Medical.

The only facilities for female education are the municipal girls' schools at Leiah and Karor. The former maintains a Nagri and an Urdu school with an average daily attendance of 59 and 23 girls respectively. At the latter place there are also a Nagri and an Urdu school, with an average attendance of 57 and 16 girls respectively.

The average daily attendance at primary schools is as follows:—

District Board Primary Schools	2,671
Aided Indigenous Schools	1,083

Section J.—Medical.

There are two hospitals in the *tahsil,* namely the Municipal hospital at Leiah and the District Board Hospital at Karor.

The former is a flourishing institution with fairly commodious buildings, in charge of an Assistant Surgeon. The wards contain beds for 12 male and 5 female in-patients, while a new operating room was erected in 1913 with the aid of a grant from the district board. Land has been acquired for extensions. Leiah.

During the year 1915 the average daily attendance of out-door patients was 58, and of in-door patients 13, while 943 minor and 213 selected operations were performed.

Of out door patients treated about 75 per cent. were residents of Leiah town, while practically all the in-door patients were from outside the town.

The hospital is maintained from municipal funds aided by an annual district board grant of Rs. 944.

The Karor hospital is in charge of a Sub-Assistant Surgeon. The accommodation is very poor and the buildings, which Karor.

CHAP. III-J.

Medical.

Karor.

were originally a Munsiff's Court, unsuitable ; material alterations are contemplated by the District Board which has recently taken it over. The in-door accommodation is limited to five beds and there are no separate male and female wards. During the year 1915 the average daily attendance of out-door patients was 83 and of in-door patients 5, while 826 minor and 59 selected operations were performed.

Some 66 per cent. of the total number of out-door patients were residents of Karor town, while nearly all the in-door patients were from outside.

Prevailing diseases in the *tahsil*.

The prevailing diseases and ailments of the *tahsil* are malarial fevers, diseases of the ear, skin and respiration and such eye troubles as cataract and granulation of the lids.

CHAPTER IV.—PLACES OF INTEREST.

The town of Leiah is situated on a sandy plain on the old left bank of the Indus. The site lies low, but the ground rises towards its centre. The Lala creek of the river runs about a mile to the west of the town and drains the country.

To the east the Thal is level and has a firm sandy soil: to the west on the edge of the Kachhi are several well-stocked gardens, planted with mango, orange, pomegranate and other fruit trees, which were originally attached to the residences of the Civil Officers of the old Leiah district.

The town was probably founded during the 16th century by Kamal Khan, a Biloch of the Mirrani family of Dera Ghazi Khan: his descendants ruled the surrounding country for some 200 years until supplanted by the Kalhora kings of Sind. On the establishment of Muhammad Khan, Sadozai, in 1792 Leiah gave place to Mankera in Bhakkar as the capital. Under the Sikh Government Leiah became once more the centre of the administration, and on the British occupation in 1849 it rose for some time to the dignity of the head-quarters of the Division. In 1561 the Leiah district was broken up and the town formed the head-quarters of the Leiah *tahsil* of Dera Ismail Khan district until 1901, when the Mianwali district was formed and Leiah became the southern half of the Bhakkar sub-division. In 1909 a further administrative change brought the Leiah *tahsil* into Muzaffargarh district, of which it forms the sub-division.

The origin of the word "Leiah" is unknown: it is locally said to be a corruption of *laian, i.e.*, tamarisk shrub jungle, because when founded the site was on the river bank and covered with this shrub.

The old Sessions Court, which is now used as a combined District rest-house and Sub-Divisional Officer's residence and Court, an old ruined Salt Patrol House and the cemetery are the only relics of the old Civil Station. The town was constituted a municipality in 1873.

The Tahsil and Police Station buildings, the Municipal Office and District Board Veterinary Hospital are situated on the main Muzaffargarh road which runs along the western edge of the town.

The rest-house is situated near the same road about ¼ mile further to the south and from this point to the Railway Station the road is metalled.

CHAP.-IV. — Places of Interest.

Attached to the rest-house is a District Board garden containing a plantation of recently imported Arabian Gulf date palms.

The hospital and school are situated on the southern edge of the town.

The population of the town at the last Census was 8,173 and is on the increase.

Tables in Part B of this volume show the leading statistics relating to the town and municipality.

Karor.—Karor town is situated similarly to Leiah just on the old bank of the Indus which is here a distinct physical feature, the land dropping abruptly some 20 feet to the level of the Kachhi.

The town is in latitude 31° 13′ 30″ north and longitude 70° 69′ 15″ east.

The main *bazar* and many of the side streets have been paved and properly levelled and most of the shops have *pakka* masonry fronts. On the whole the town is clean and well looked after.

Surrounding the town is a circular road well planted with trees. To the east runs the main Muzaffargarh-Mianwali road and on it are situated the Municipal Office, Provincial rest house, the Hospital, Munsiff's Court and the Middle School. A short branch road leads off from it to the Railway Station, which is about ¾ mile from the town. The whole distance from the town to the station is metalled. The Shrine of Makhdum Lal Isan lies to the east of the main road and is thus well outside the town. It is a handsome edifice profusely ornamented inside and out with blue glazed Multan tiles which have a very pleasing effect, the designs and colouring being tasteful and artistic. Blue is the prevailing colour, but green also enters into the colour scheme. The whole is surmounted by a white plaster dome which renders the tomb a conspicuous feature of the landscape. Round the tomb and extending to the north-east lies an immense cemetery.

Popular History of Lal Isan.—It is said that Sultan Hassan came here from Arabia and converted the people to Islam—a *karor* of people being converted—and settled at Karor 14 generations before Lal Isan; hence the name "Kot Karor." Five generations later the saint Lahawal Haq was born at Karor and went

to Multan. Lal Isan was born at Multan in the same family and came to Karor and there recited the *surat muzammil* a *karor* of times: at that time the Indus had drowned out half Karor which used to extend below the old bank: the river then retreated six miles. He died at the beginning of the year 1,000 Hijri. The shrine was built shortly afterwards by his descendants. His descendants are still in Multan, Haiderabad (Deccan), Dera Ismail Khan and Mianwali and at Karor itself. Mr. Thorburn, Deputy Commissioner, in 1882 took considerable interest in the shrine and, at his suggestion, a Committee of four persons, descendants of Lal Isan, keep accounts, &c. Ghulam Sarwar Shah, Jahan Pir Shah, Jaman Shah and Sher Muhammad Shah are the present members.

A fair takes place on 14th Bhadon and lasts about three weeks and some 50,000 people attend from all parts. It is a great place of pilgrimage. Descendants and disciples are buried in the courtyard which contains the tomb of Ismail Khan who founded Dera Ismail Khan People from all round bring dead here and the surrounding cemetery is immense. Lal Isan's descendants are in four branches and four lights are kept burning day and night in the shrine. When any descendant is about to die, his lamp burns without oil and at his death goes out. Miracles in the form of sick persons recovering are common.

The fair costs about Rs. 550, of which the Committee pays Rs. 50.

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Part B.

Index to Statistical Tables.

TABLES

OF THE

LEIAH TAHSIL.

TABLE 5.—SEASONAL RAINFALL IN INCHES AT LEIAH TAHSIL FOR THE AGRICULTURAL YEAR ENDING 31ST MAY.

—	1891-92.	1892-93.	1893-94.	1894-95.	1895-96.	1896-97.	1897-98.	1898-99.	1899-1900.	1900-01	1901-02.	1902-03.	1903-04.	1904-05.
June to September ...	6·11	11·31	4·06	8·45	6·77	3·71	7·52	3·52	3·19	4·81	3·34	4·30	8·48	0·48
October to December	...	0·21	0·71	0·64	0·25	...	0·20	...	...	1·35	...	...	0·11	0·02
January to May ...	0·15	3·53	2·24	2·62	1·78	1·95	1·55	0·51	2·38	3·61	1·21	2·84	5·74	2·97
Whole year ...	6·26	15·05	7·01	11·71	8·80	5·66	9·27	4·03	5·57	9·77	4·55	7·14	14·33	3·47

—	1905-06.	1906-07.	1907-08.	1908-09.	1909-10.	1910-11.	1911-12.	1912-13.	1913-14.	1914-15.	1915-16.	1916-17.	1917-18.	1918-19.
June to September ...	4·65	2·78	8·55	8·49	8·13	1·34	3·16	2·47	9·92	12·13	1·26			
October to December	·59	·08	...	0·12	0·34	0·17	1·88	...	0·64	1·10	0·54			
January to May ...	3·84	1·80	3·16	1·72	1·49	6·26	5·50	1·27	3·39	2·06	1·80			
Whole year ...	9·08	4·66	11·71	10·33	9·96	7·77	10·54	3·74	13·95	15·29	3·60			

TABLE 6.—DISTRIBUTION OF POPULATION.

TABLE 6.—DISTRIBUTION

Census year.	Total square miles.	Cultivated square miles.	Square miles culturable but not cultivated.	Square miles under matured crops (10 years' average).	Total population.		
					Total.	Males.	Females.
1881	2,428	203	974	144 (1877—1881)	102,612	55,670	46,942
1891	2,397	...	...	...	112,819	60,650	52,169
1910	2,417	286	1,112	251	122,678	66,139	56,539
1911 ...	2,417	...	...	...	128,591	69,002	59,589
1921							

Number of persons per square mile—53 (1911); in 1881

Increase of population, percentage of variation—1901

Total population in 1855—80,149

OF POPULATION.

Urban population.			Rural population.			Towns and villages.						Remarks.
Total.	Males.	Females.	Total.	Males.	Females.	5,000—10,000.	2,000—5,000.	1,000—2,000.	500—1,000.	Under 500.	Total.	
8,622	4,437	4,185	93,990	51,233	42,757	3	10	19	26	45	103	
10,270	5,327	4,943	102,549	55,323	47,226	...	...	...	...	...	...	
10,789	5,864	5,125	111,889	60,475	51,414	1	9	41	26	43	120	
11,676	6,047	5,629	116,915	62,955	53,960	1	13	35	24	90	163*	Towns. 2 Villages 161

was 42; in 1891 was 47·1; in 1901 was 50.

1911, + 5·4; 1891—1901, + 8·1.

1868, 94,937.

TABLE 7.—POPULATION OF TOWNS.

Name of town.	Census year.	Total population.			Hindus.			Sikhs.			Muhammadans.		
		Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
Leiah	1868	2,826	2,620	5.446	...	...	...	...	...	...	...	...	...
	1875	...	...	5,689	...	...	...	...	...	...	...	...	...
	1881	3,042	2,857	5,899	1,512	1,474	2,986	...	...	...	1,530	1,383	2,913
	1891	3,863	3,574	7,437	1,648	1,625	3,273	5	1	6	2,210	1,948	4,158
	1901	3,948	3,598	7,546	1,774	1,689	3,463	9	7	16	2,162	1,898	4,060
	1911	4,265	3,908	8,173	1,725	1,642	3,367	123	117	240	2,416	2,146	4,562
	1921												
Karor	1868	2,999	2,721	5,720	...	...	...	...	...	...	...	...	...
	1875	...	..	2,766	...	.	...	...	...	...	...	...	...
	1881	1,395	1,328	2,723	729	730	1,459	1	...	1	665	598	1,263
	1891	1,464	1,369	2,833	782	728	1,510	7	7	14	674	634	1,308
	1901	1,716	1,527	3,243	869	814	1,683	10	4	14	837	709	1,546
	1911	1,782	1,721	3,503	911	947	1,858	27	12	39	844	762	1,606
	1921												

TABLE 13.—BIRTHS AND DEATHS IN TOWNS.

BIRTHS.

Town.	Sex.	Total population under registration by census of 1901.	Total population under registration by census of 1911.	Total number of births registered during the year: Average, 1891—95.	Average, 1896—1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.
Leiah ...	Male ...	3,948	4,265	106	120	148	148	163	128	161	182	179	171
	Female ...	3,598	3,908	80	103	109	122	154	133	137	182	138	152
Karor ...	Male ...	1,716	1,782	59	66	71	93	97	73	81	123	75	102
	Female ...	1,527	1,721	49	57	58	101	58	88	69	97	79	101

Town.	Sex.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.	1919.	1920.
Leiah ...	Male ...	139	200	205	209	205	207	151					
	Female ...	115	174	201	216	177	181	121					
Karor ...	Male ...	61	88	98	122	113	133	112					
	Female ...	59	84	104	90	74	88	77					

TABLE 13.—BIRTHS AND DEATHS IN TOWNS—CONCLUDED.

DEATHS.

Town.	Sex.	TOTAL NUMBER OF DEATHS REGISTERED DURING THE YEAR										
		Average, 1891—95.	Average, 1896—1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.
Leiah ...	Male ...	98	86	55	67	96	79	95	114	122	260	90
	Female ...	75	86	38	65	100	70	97	142	120	231	69
Karor ...	Male ...	50	72	41	36	81	52	59	95	78	103	44
	Female ...	48	63	29	44	86	57	45	67	92	98	44

Town.	Sex.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.	1919.	1920.
Leiah ...	Male ...	107	144	100	115	155*	113					
	Female ...	115	139	101	109	130	104					
Karor ...	Male ...	52	57	74	81	87	78					
	Female ...	71	59	59	62	64	59					

TABLE 15.—TRIBES AND CASTES.

CASTE OR TRIBE AND RELIGION.	1881.	1891.	1901.	1911.	CASTE OR TRIBE AND RELIGION.	1881.	1891.	1901.	1911.
ARÁÍN, Muhammadans ...	...	...	791	718	FAQÍR	...	...	2,311	898
ARORA, Hindus ...	...	...	12,418	13,520	Hindus	...	...	145	45
BABAR, Muhammadans ...		...	...	414	Sikhs	...	...	...	14
BHATIA, Hindus ...	...	...	...	3	Muhammadans ...	...	...	2,166	839
BHATIÁRA, Muhammadans ...	...	...	...	26	A. JAT, Muhammadans ...	...	...	45,215	50,984
A. BILOCH, Muhammadans ...	...	...	14,419	15,876	Autrah	...	...	263	322
Chándia	...	...	...	1,037	Babbar	...	...		2
Gishkori	...	...	...	845	Bhutta	...	...	193	251
Gurmáni	...	...	...	1,765	Chattha ...	...	...	...	191
Hijána	...		...	58	Chaddar	...	...	287	328
Hot	...	...	...	175	Dha	...	...	915	33
Korai	...	...	...	161	Ghallu	...	...	...	161
Kulácbi	...	...	...	401	Háns	...	...	...	626
Laghari	...	...	...	40	Janjua	...	...	136	125
Lisári	...	...	...	1,286	Kalásra	...	...	965	111
Marráni	...	...	...	1,943	Kálsu	...	...	...	1,014
Pachár	...	...	...	150	Khaira	...	...	...	544
Patáfi	...	...	...	176	Langáh	...	...	189	79
Rind	...	...	...	208	Lár	...	...	...	12
Sakhiáni	...	...	...	172	Mulána	...	...	...	537
Saráni	...	...	...	312	Parhár	...	...	...	27
BRAHMAN, Hindus ...	...	...	923	956	Sahu	...	...	...	415
CHÚHRA	...	...	706	251	Sumra	...	...	...	223
Hindus	...	...	142	5	Tahim	...	...	...	61
Muhammadans ...	...	...	564	246	JHABEL, Muhammadans ...	...	...	...	38
DHOBI, Muhammadans ...	...	...	1,629	2,177	JULÁHA, ditto ...	...	...	...	5,877

TABLE 15.—TRIBES AND CASTES—CONCLUDED.

Caste or tribe and religion.	1881.	1891.	1901.	1911.	Caste or tribe and religion.	1881.	1891.	1901.	1911.
Kanera, Muhammadans ...	...	...	...	125	Qassáb, Muhammadans ...	...	...	...	1,676
Kehal, ditto ..	...	...	...	45	A. Qureshi, ditto ...	...	...	...	797
Khatri, Hindus ...	...	...	...	964	A. Rájpút	...	...	...	351
Khoja, Muhammadans ...	...	...	...	544	Hindus	...	...	...	12
Kumhár, ditto ...	...	...	...	3,117	Sikhs	...	...	...	4
Labána, Sikhs ...	...	...	...	567	Bhatti, Muhammadans ...	...	...	...	275
Lohár, Muhammadans ...	...	...	...	1,101	A. Saiyad, Muhammadans ...	...	...	...	3,150
Máchhi, ditto ...	...	...	...	2,472	Sheikh, ditto ...	...	—	...	832
Malláh, ditto ...	...	...	...	2,867	Sunár	...	...	...	855
Mirási, ditto ...	...	...	...	1,708	Hindus	...	...	...	686
Mochi, ditto ...	...	...	...	4,754	Sikhs	...	...	...	149
Nái, ditto ...	...	...	...	2,216	Muhammadans ...	...	...	...	20
Od	...	...	...	337	Tarkhán, Muhammadans ...	...	...	...	4,145
A. Pathán, Muhammadans ...	...	...		843					

TABLE 16.—RELIGIONS.

Religion.	Sex.	1881.			1891.			1901.			1911.			1921.	
		Rural.	Urban.	Total.	Rural.	Urban.	Total.	Rural	Urban.	Total.	Rural.	Urban.	Total.		
Muhammadans	Male ...	...	2,195	...	...	2,884	...	...	2,999	...	56,766	3,260	60,026		
	Female ...	...	1,981	...	...	2,582	...	...	2,607	...	48,332	2,903	51,240		
	Total ...	84,712	4,176	88,888	90,948	5,466	96,414	100,584	5,606	106,190	105,098	6,168	111,266		
Hindus ...	Male ...	...	2,241	...	...	2,430	...	...	2,643	...	5,352	2,636	7,988		
	Female ...	...	2,204	...	...	2,353	...	...	2,503	...	4,848	2,589	7,437		
	Total ...	8,812	4,445	13,257	10,923	4,783	15,706	10,496	5,146	15,642	10,200	5,225	15,425		
Sikhs ..	Male ...	...	1	...	...	12	...	...	19	...	837	150	987		
	Female ...	...	...	...	...	8	...	...	11	...	780	129	909		
	Total ...	464	1	465	676	20	696	803	30	833	1,617	279	1,896		

TABLE 18.—SURVEYED AND ASSESSED AREA IN ACRES FOR WHOLE TAHSIL AND EACH ASSESSMENT CIRCLE.

LAND REVENUE REPORT STATEMENT I.

Area.	Year.	Total area including forests.	Total area available for cultivation but not yet cultivated.		Number of *pakka* wells in use.	Number of *kacha* wells, *dhenklis* and *jhalárs* in use.	Cultivated.					Total assessment including that of *muáfis* and *jágirs*.
			Government waste.	Others.			*Cháhi* including *Cháhi sailáb*.	*Nahri.*	*Sailáb.*	*Báráni.*	Total cultivated area.	
1	2	3	4	5	6	7	8	9	10	11	12	13
												Rs.
Kachhi ...	1878 (Settlement) ...											
	1901-02 ...	289,138	1,570	...	...	...	22,898	...	66,210	...	89,108	...
	1906-07 ...	282,421	...	104,987	2,223	780	50,047	...	89,139	...	139,186	1,03,016
	1911-12 ...	280,282	25	95,382	2,663	820	52,180	...	97,110	...	149,290	1,22,367
	1916-17 ...	280,236	25	100,866	2,983	854	55,892	...	77,810		133,702	1,21,258
Thal ...	1878 (Settlement) ...											
	1901-02 ...	1,264,736	217,703	...	...	..	40,771	...	...	...	40,771	...
	1906-07 ...	1 267,589	216,827	950,994	2,152	...	33,519	...	...	364	33,883	40,307
	1911-12 ...	1,266,663	216,824	948,356	1,973	...	35,682	...	...	530	36,212	24,025
	1916-17 ...	1,265,978	216,610	963,010	2,260	...	40,588	...	84	3,637	44,309	25,271
Whole tahsil ...	1879 (Settlement) ...											
	1901-02 ...	1,553,874	91,759	622,326	3,150	259	64,386	...	66,210	...	130,596	1,18,030
	1906-07 ...	1,550,010	216,827	1,055,980	4,375	780	83,566	...	89,139	364	173,069	1,43,323
	1911-12 ...	1,546,945	216,849	1,043,738	4,636	820	87,862	...	97,110	530	185,502	1,46,392
	1916-17 ...	1,546,214	216,635	1,063,876	5,243	854	96,480	...	77,894	3,637	178,011	1,46,529

TABLE 19.—ACRES UNDER PRINCIPAL CROPS.

TABLE 19—

	Year.	Rice.	Wheat.	Barley.	*Jowár.*	*Bájra.*	Gram.	Other cereals.
WHOLE TAHSIL.	Year of Settlement (1879-80).	...	87,542	2,951	4,242	4,577	6,491	8,255
	1890-91		85,687	8,792	7,025	7,684	7,275	7,687
	1891-92	...	98,716	10,022	8,033	8,551	8,151	7,355
	1892-93	...	96,010	9,030	5,721	7,857	11,592	6,243
	1893-94	...	90,064	8,835	6,859	9,586	7,197	6,242
	1894-95	...	92,453	7,875	6,042	7,571	8,203	7,196
	Average, 1890-91 to 1894-95.	...	92,586	8,911	6,736	8,250	8,484	7,086
	1895-96	...	68,998	6,092	6,853	6,044	1,803	4,100
	1896-97	...	84,855	7,793	8,450	6,822	6,652	6,950
	1897-98	...	93,477	10,365	5,310	4,772	11,587	8,745
	1898-99	...	84,482	8,407	7,050	6,086	13,914	9,139
	1899-1900 ...	...	73,686	7,201	7,259	7,082	9,017	7,077
	Average, 1895-96 to 1899-1900.	...	81,100	7,972	6,984	6,161	8,595	7,202
	1900-01	...	87,011	9,033	7,094	8,056	16,787	403
	1901-02	...	66,038	8,108	4,774	8,947	10,044	440
	1902-03	...	50,231	6,033	5,789	8,267	5,366	4,926
	1903-04	...	64,.62	9,206	2,133	2,523	10,311	...
	1904-05	...	64,560	9,399	5,212	8,608	4,668	36
	Average, 1900-01 to 1904-05.	...	66,440	8,356	5,000	..,280	9,435	1,161
	1905-06	...	72,984	10,778	5,441	8,754	11,137	143
	1906-07	9	83,026	11,645	6,629	5,959	19,075	197
	1907-08	5	76,025	12,349	4,018	9,057	21,510	265
	1908-09	1	68,140	9,622	4,471	7,992	10,723	314
	1909-10	3	72,082	10,986	4,245	8,524	16,116	290
	Average, 1905-06 to 1909-10.	3	74,451	11,076	4,960	8,057	15,712	241
	1910-11	11	77,315	10,420	4,226	6,335	19,340	289
	1911-12	...	79,869	10,639	3,304	5,681	17,148	291
	1912-13	6	84,816	11,382	1,684	7,388	13,509	203
	1913-14	23	84,879	12,029	2,916	6,815	12,195	254
	1914-15	66	87,728	12,830	1,604	6,394	15,479	176
	Average, 1910-11 to 1914-15.	21	82,921	11,460	2,746	6,522	14,334	242

ACRES UNDER PRINCIPAL CROPS

Mung and *Másh.*	Peas, *moth* and other pulses.	Oil-seeds.	Sugarcane.	Cotton.	Total area cropped.	Area of crops failed.	All others.
339	8,080	4,204	36	3,161	129,878	..	...
4,425	9,916	20,846	76	2,967	162,384	830	..
5,307	11,218	9,161	33	1,553	168,100	70	...
7,477	13,563	14,649	39	2,115	174,229	50	..
3,814	11,329	14,614	26	2,269	161,545	1,189	..
4,597	11,811	25,996	31	2,334	174,109	86	..
5,124	11,567	17,053	41	2,248	168,087	445	...
2,458	11,757	15,603	39	2,895	126,642	1,934	...
3,154	11,920	27,646	31	3,566	167,840	193	...
1,878	11,613	9,576	35	2,074	159,432	81	...
853	11,096	16,938	30	2,014	160,009	2,079	...
3,249	11,932	20,594	19	2,128	149,244	3,649	...
2,319	11,664	18,071	31	2,535	152,633	1,587	...
3,669	18,819	14,993	17	2,192	168,075	4,712	...
2,799	18,568	4,742	20	1,498	125,978	24,079	...
2,656	11,573	6,795	24	2,335	103,995	10,151	...
1,694	4,728	6,589	32	2,502	126,608	9,963	...
1,063	4,698	5,349	57	2,194	120,727	22,999	...
2,376	11,677	8,039	30	2,144	129,075	14,381	...
2,994	5,335	11,445	87	1,084	145,724	21,876	...
2,803	9,637	13,505	103	1,719	148,097	23,866	...
2,968	9,930	11,843	54	2,220	165,134	36,240	14,890
1,021	8,209	12,290	41	2,338	140,100	16,823	14,938
1,995	9,069	12,067	47	2,279	152,617	26,531	14,914
2,356	8,436	12,230	66	1,928	150,334	25,076	...
1,277	5,301	11,945	55	2,450	159,083	14,804	20,119
1,432	7,656	18,012	22	2,448	159,701	8,031	19,199
2,874	6,752	9,077	32	2,651	159,921	6,499	19,547
2,103	6,322	8,616	49	2,983	160,990	4,216	21,806
1,171	4,921	6,679	61	2,366	163,856	14,139	24,381
1,771	6,190	10,865	43	2,579	160,710	9,537	21,010

TABLE 20.—TAKAVI.

SHOWING THE AMOUNT IN RUPEES ADVANCED DURING THE YEAR ENDING SEPTEMBER 30TH.

—	1895-96.	1896-97.	1897-98.	1898-99.	1899-1900.	1900-01.	1901-02.	1902-03.	1903-04.	1904-05.	1905-06.	1906-07.
Land improvement loans	2,340	120	...	400	1,620	200	500	9,249	4,570	5,185	2,150	725
Loans to agriculturists	...	13,430	13,529	5,818	11,325	9,700	4,710	7,286	5,080	10,000	17,000	5,500

—	1907-08.	1908-09.	1909-10.	1910-11.	1911-12.	1912-13.	1913-14.	1914-15.	1915-16.	1916-17.	1917-18.	1918-19.
Land improvement loans	1,035	6,900	7,650	6,870	15,800	8,720	12,425	4,175				
Loans to agriculturists	22,440	5,100	100	4,000	24,200	16,580	2,000	10,489				

TABLE 21.—SALES, MORTGAGES AND REDEMPTIONS.

YEAR.	Sales of land.			Mortgages of land.			Redemptions of mortgaged land.		
	Number of cases.	Area in acres.	Purchase money.	Number of cases.	Area in acres.	Mortgage money.	Number of cases.	Area in acres.	Mortgage money.
			Rs.			Rs.			Rs.
1900-01 ...	985	18,149	1,70,977	783	15,709	1,36,918	476	10,880	68,015
1901-02 ...	937	22,174	1,56,615	876	41,859	86,227	502	6,742	40,299
1902-03 ...	457	8,962	78,099	451	3,699	50,704	172	3,040	22,217
1903-04 ...	600	8,877	1,00,073	201	8,348	36,297	176	3,344	22,098
1904-05 ...	396	22,632	67,085	139	7,371	19,765	127	2,188	19,585
1905-06 ...	499	7,545	96,081	170	3,128	30,596	221	4,617	31,778
1906-07 ...	446	5,513	88,816	138	3,235	23,507	259	5,595	33,368
1907-08 ...	545	21,159	96,752	196	1,843	30,313	281	3,866	31,447
1908-09 ...	852	70,648	1,82,682	349	3,262	63,416	446	8,365	53,340
1909-10 ...	900	80,103	15,088	379	3,536	67,962	441	7,819	45,857
1910-11 ...	849	11,720	1,63,777	334	2,518	61,347	442	34,991	40,703
1911-12 ...	849	9,667	1,38,927	362	2,458	56,664	498	5,078	53,671
1912-13 ...	662	17,237	1,25,443	306	3,617	62,240	437	34,007	50,989
1913-14 ...	973	18,429	1,77,261	400	3,009	71,605	545	18,622	58,701
1914-15 ...	841	12,382	1,61,253	328	2,076	54,424	494	4,280	47,920
1915-16 ...									
1916-17 ...									
1917-18 ...									
1918-19 ...									
1919-20 ...									
1920-21 ...									

TABLE 22.—AGRICULTURAL STOCK.

Kind of stock.	YEAR.				
	1878-79.	1900-01.	1905-06.	1909.	1914.
Bulls and bullocks	32,285	41,716	39,162	43,867	51,256
Cows	13,570	20,401	20,677	22,818	28,090
Male buffaloes	184	372	564	584	581
Cow buffaloes	4,975	5,799	5,871	6,625	7,680
Young stock (calves or buffalo calves).	12,479	15,474	16,776	20,249	20,170
Sheep	162,312 (Sheep and Goats)	211,262	143,614	184,567	183,560
Goats		105,000	88,076	91,326	94,219
Horses and ponies	982	1,613	1,410	1,560	1,954
Mules and donkeys	4,640	7,739	7,2[illegible]9	8,077	10,736
Camels	2,823	22,987	22,893	24,628	23,169
Ploughs	12,887	18,188	16,490	19,161	21,049
Carts	..	1	1	9	1
Boats	28	46	29	51	49

TABLE 29.—LIST OF REST HOUSES.

No.	Locality.	Department.	Accommodation.	Out-houses.	REMARKS.
1	Chaubara ...	District Board...	Two rooms 16 by 16 ft.; 2 rooms 16 by 10 ft.; 2 bath rooms; 1 pantry; 1 godown.	One kitch n; 5 servants' quarters; 2 stables.	Contains crockery.
2	Leiah ...	Provincial: maintained by District Board.	One room 20 by 18 ft.; 2 rooms 18 by 11½ ft.; 2 bath rooms; 1 pantry.	One kitchen; 1 godown; 1 chaukidars' quarters; 2 stables; 4 servants' quarters; 1 munshikhana; 2 kitchens.	One mile from Railway Station.
3	Karor ...	Ditto	One room 20 by 18 ft.; 1 rcom 12 by 18 ft.; 1 bath room; 1 dressing room; 1 godown.	One kitchen; 1 servants' quarter; 1 stable; 1 chaukidars' quarter.	About ¾ mile from Railway Station: contains crockery.
4	Kot Sultan ...	Public Works Department, Irrigation.	One room 20 by 18 ft.; 1 room 20 by 14 ft.; 1 room 12 by 21 ft.; 2 bath rooms.	One kitchen; 2 godowns; 1 chaukidars' quarter; 1 munshikhana; 1 guardkhana.	Half a mile from Railway Station.

TABLE 34-(A).— JIRGA CASES.

Year.	Cases referred to Council of Elders.	Persons involved	Persons convicted.	REMARKS.
1911	10	27	17	
1912	5	16	6	
1913	5	11	8	
1914	3	8	6	
1915	28	191	130	
1916				
1917				
1918				
1919				
1920				
1921				
1922				
1923				
1924				
1925				
1926				

TABLE 38.—CULTIVATING OCCUPANCY OF LAND.

Year.	—	Total cultivated area.	Area cultivated by owners and tenants	Area cultivated by tenants free of rent or at nominal ra'e.	AREA CULTIVATED BY TENANTS PAYING RENT. *With right of occupancy.* Paying at revenue rates with or without *máli-kána.*	*With right of occupancy.* Paying other cash rents.	*With right of occupancy.* Paying in kind with or without an addition in cash.	*Without right of occupancy.* Paying at revenue rates with or without *máli-kána.*	*Without right of occupancy.* Paying other cash rents.	*Without right of occupancy.* Paying in kind with or without an addition in cash.
1879-80 (Settlement.)	Number of holdings ...	...	...	...	...	...	...	...	...	...
	Area in acres	..	...	...	...	...	...	...	...	...
1901-02 ...	Number of holdings ...	35,637	11,917	741	3,278	3	4,654	2,490	93	12,461
	Area in acres	171,156	80,975	593	10,140	13	20,978	9,928	348	48,181
1906-07 ...	Number of holdings ...	39,047	13,559	810	3,801	3	4,763	2,176	94	13,841
	Area in acres	175,943	83,680	914	10,953	13	18,187	8,539	290	53,367
1911-12 ...	Number of holdings ...	46,768	19,221	1,751	4,178	4	4,588	2,068	119	14,839
	Area in acres	178,726	99,160	1,647	9,139	8	13,996	8,064	375	46,537
1916-17 ...	Number of holdings ...	...	...	...		...	...	...	...	...
	Area in acres	...	...	...	...	...	...	...	...	...

TABLE 39.—FIXED LAND REVENUE.

Year.	Demand.	Collections.	Percentage of collection on demand.	Collections during current year on account of previous years.	Total collections during the year.	Remissions on account of calamity of season sanctioned during the year	
						On account of current year.	On account of previous years.
	Rs	Rs.		Rs.	Rs.	Rs.	Rs.
1879-80 (Settlement) ...	...	...	...	...	...	...	...
1900-01	39,633	27,579	69·	...	27,579	...	...
1901-02	39,747	23,287	59·	..	23,287	...	..
1902-03	39,751	22,145	55·	...	22,145	...	.
1903-04	29,415	23,315	79·	...	23,315	...	.
1904-05	29,421	22,060	74·	...	22,060	...	...
1905-06	29,533	24,613	83	...	24,613	4,920	...
1906-07	29,605	24,986	84·	...	24,986	4,619	...
1907-08	8,630	8,630	100·	...	8,630	...	...
1908-09	8,663	8,663	100·	...	8,663	...	...
1909-10	8,710	8,710	100·	...	8,710	...	...
1910-11	8,710	8,710	100·	...	8,710	...	...
1911-12	8,709	8,709	100·	...	8,709	...	...
1912-13	8,709	8,709	100·	...	8,709	...	...
1913-14	8,709	8,709	100·	...	8,709	...	...
1914-15	8,709	8,709	100·	...	8,709	...	...
1915-16							
1916-17							
1917-18 ...							
1918-19 ...							
1919-20							
1920-21							

TABLE 40.—FLUCTUATING AND MISCELLANEOUS LAND REVENUE.

TABLE 40.—FLUCTUATING AND

YEAR.	SOURCES OF FLUCTUATING LAND			
	Temporarily excluded from fixed land revenue roll.	PERMANENTLY EXCLUDED FROM FIXED LAND		
		Canal irrigated lands.	Other lands	Other items.
*2	3	5	6	7
	Rs.	Rs.	Rs.	Rs.
1879-80 (Settlement) ...	...	...	...	...
1900-01	...	...	1,03,179	...
1901-02	...	...	98,204	...
1902-03	...	...	78,465	...
1903-04	...	...	1,04,747	...
1904-05	216	..	99,141	67
1905-06	...	...	1,19,053	...
1906-07	...	...	1,15,550	...
1907-08	...	...	1,07,717	...
1908-09	...	...	1,10,461	...
1909-10	...	...	1,04,755	...
1910-11	..	.	1,27,310	23
1911-12	...	...	1,31,640	3
1912-13	...	564	1,38,963	...
1913-14	...	872	1,37,308	...
1914-15	...	784	1,28,798	29
1915-16				
1916-17				
1917-18				
1918-19				
1919-20				
1920-21				

*The numbers of these columns correspond with those of

MISCELLANEOUS LAND REVENUE.

REVENUE.			FLUCTUATING AND MISCELLANEOUS REVENUE.		
REVENUE ROLL.					
Total.	Total of columns 3 and 8.	Miscellaneous revenue.	Total miscellaneous and fluctuating revenue—columns 9 and 21.	Collections during current year on account of previous years.	Total collections—columns 22 and 23.
8	9	21	22	23	24
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
...	...	...	...	...	...
1,03,179	1,03,179	5,666	1,08,845	..	1,08,845
98,204	98,204	6,150	1,04,354	76	1,04,430
78,465	78,465	4,947	83,412	352	83,764
1,04,747	1,04,747	4,940	1,09,687	37	1,09,724
99,211	99,427	4,478	1,03,905	109	1,04,014
1,19,053	1,19,053	4,380	1,23,433	275	1,23,708
1,15,550	1,15,550	4,459	1,20,009	9	1,20,018
1,07,717	1,07,717	4,454	1,12,171	28	1,12,199
1,10,461	1,10,461	6,187	1,16,648	73	1,16,721
1,04,755	1,04,755	7,161	1,11,916	44	1,11,960
1,27,333	1,27,333	6,192	1,33,525	47	1,33,572
1,31,643	1,31,643	5,990	1,37,633	74	1,37,707
1,39,527	1,39,527	5,766	1,45,293	33	1,45,326
1,38,180	1,38,180	5,968	1,44,148	13	1,44,161
1,29,610	1,29,610	7,904	1,37,514		1,37,514

TABLE 43.—INCOME TAX SHOWING ACTUAL COLLECTIONS.

YEAR.	OVER RS. 2,000.		UNDER RS. 2,000	
	Assessees.	Tax.	Assessees.	Tax.
1890-91	3	223	169	2,694
1891-92	3	237	306	4,669
1892-93	3	223	299	4,467
1893-94 ...	3	194	407	4,993
1894-95	7	384	224	3,138
1895-96	4	218	204	3,165
1896-97	3	181	205	3,201
1897-98	4	294	215	3,324
1898-99	4	294	218	3,250
1899-1900	4	304	231	3,366
1900-1901	5	434	249	3,637
1901-02	11	751	239	3,514
1902-03	10	649	230	3,467
1903-04	10	703	62	1,594
1904-05	10	641	73	1,839
1905-06	17	1,046	68	1,651
1906-07	15	1,044	89	2,195
1907-08	14	966	89	2,184
1908-09	24	1,535	95	2,082
1909-10	15	1,039	96	2,444
1910-11	13	931	107	2,740
1911-12	14	1,090	107	2,757
1912-13	27	2,395	151	4,007
1913-14	29	2,647	160	4,254
1914-15	29	2,662	185	4,863
1915-16	36	3,042	187	4,989
1916-17				
1917-18				
1918-19				
1919-20				
1920-21				

TABLE 46.—MUNICIPAL FUNDS.

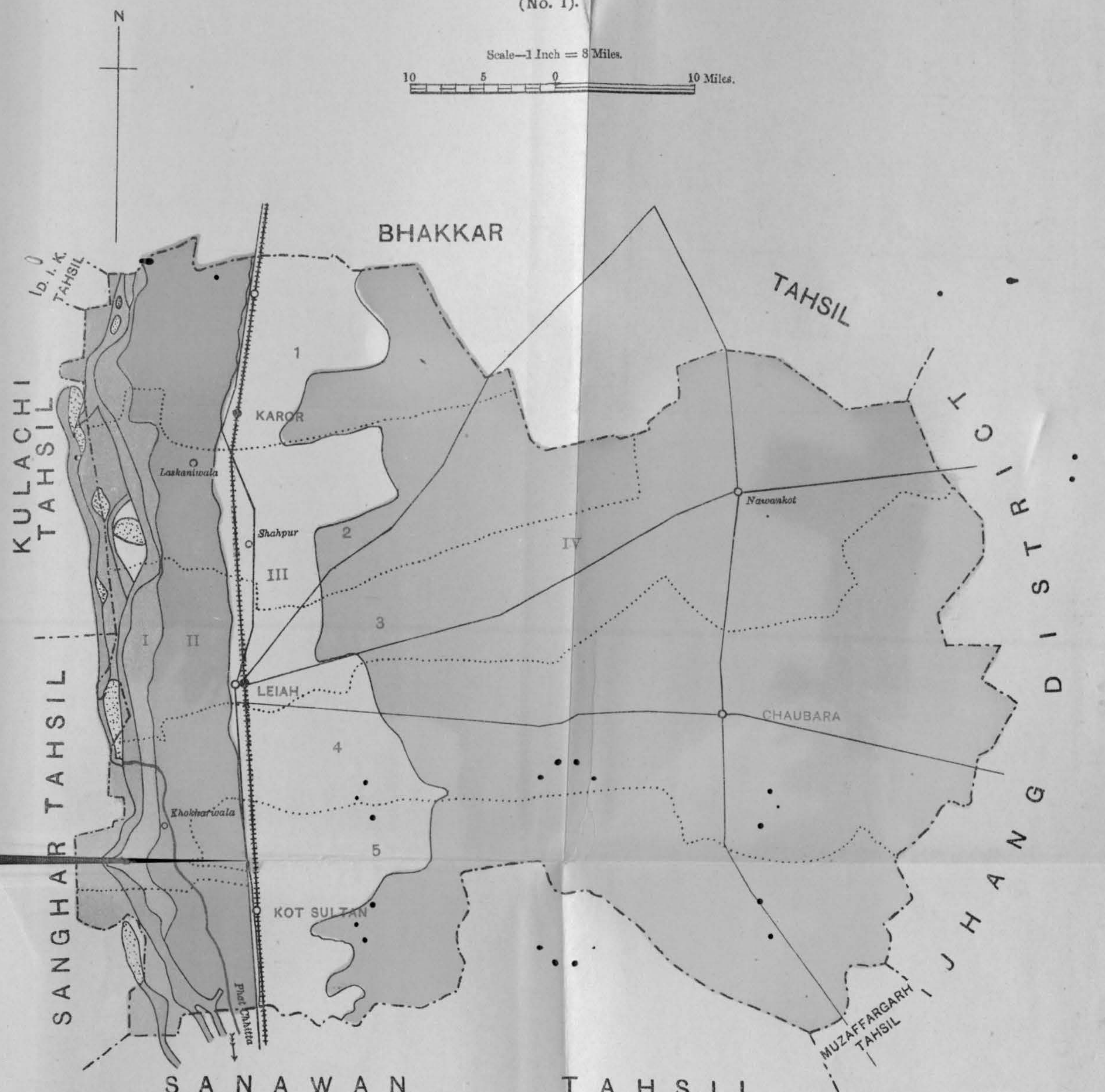
Year.	Leiah.		Karor.	
	Income excluding opening balance.	Expenditure.	Income excluding opening balance.	Expenditure.
	Rs.	Rs.	Rs.	Rs.
1895-96	11,077	11,370	3,426	4,692
1896-97	9,314	10,371	3,263	4,550
1897-98	10,142	10,344	3,710	3,875
1898-99	10,017	9,493	3,662	3,161
1899-1900	10,378	9,601	3,544	3,596
1900-01	10,209	9,796	3,456	3,582
1901-02	10,818	9,839	3,922	3,547
1902-03	10,124	11,694	4,108	4,075
1903-04	9,960	10,616	3,385	3,609
1904-05	11,293	11,081	4,453	3,473
1905-06	11,685	11,746	5,414	4,355
1906-07	16,138	11,777	6,650	5,776
1907-08	23,197	14,222	6,756	6,293
1908-09	14,218	18,857	6,938	6,938
1909-10	15,533	12,327	7,493	6,110
1910-11	16,416	27,458	7,291	6,833
1911-12	22,255	17,296	7,543	8,446
1912-13	24,027	16,867	8,202	6,716
1913-14	23,458	16,906	8,412	7,181
1914-15	18,740	18,228	7,714	8,262
1915-16	20,220	20,4[illegible]6	9,077	9,651
1916-17				
1917-18				
1918-19				
1919-20				
1920-21				

Year.		Total population.			Literates.			Percentage of literates to whole population.		
		Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
1	... ...	55,670	46,942	102,612	...	...	2,614	...	...	2·5
1	..	60,650	52,169	112,819	...	...	4,278	...	...	3·7
01	... ...	66,139	56,539	122,678	4,214	131	4,345	6·4	·2	3·5
11	... ...	69,002	59,589	128,591	4,543	109	4,652	6·6	·1	3·6
21	... ...									

8 DC—450—26-4-19—SGPP Lahore.

Map
OF THE
LEIAH TAHSIL.
(No. 1).

Scale—1 Inch = 8 Miles.



No. QANUNGOS' CIRCLES.

1 Karor
2 Shahpur
3 Leiah
4 Khokharwala
5 Kot Sultan

ASSESSMENT CIRCLES.

I. Kacha _________ Pink
II. Pacca _________ Green
III. Thal Jandi _____ Uncoloured
IV. Thal Kalan _______ Yellow

REFERENCES.

Head-Quarters of Tahsil _______________ LEIAH
" " " Thana _______________ CHAUBARA
Census Town below 10,000 _______________
Villages _______________
District or State and Tahsil Boundary _______________
Tahsil Boundary _______________
Qanungos' Circles _______________
Canal _______________
Railway Open _______________
Metalled Road _______________
Unmetalled " _______________
River _______________

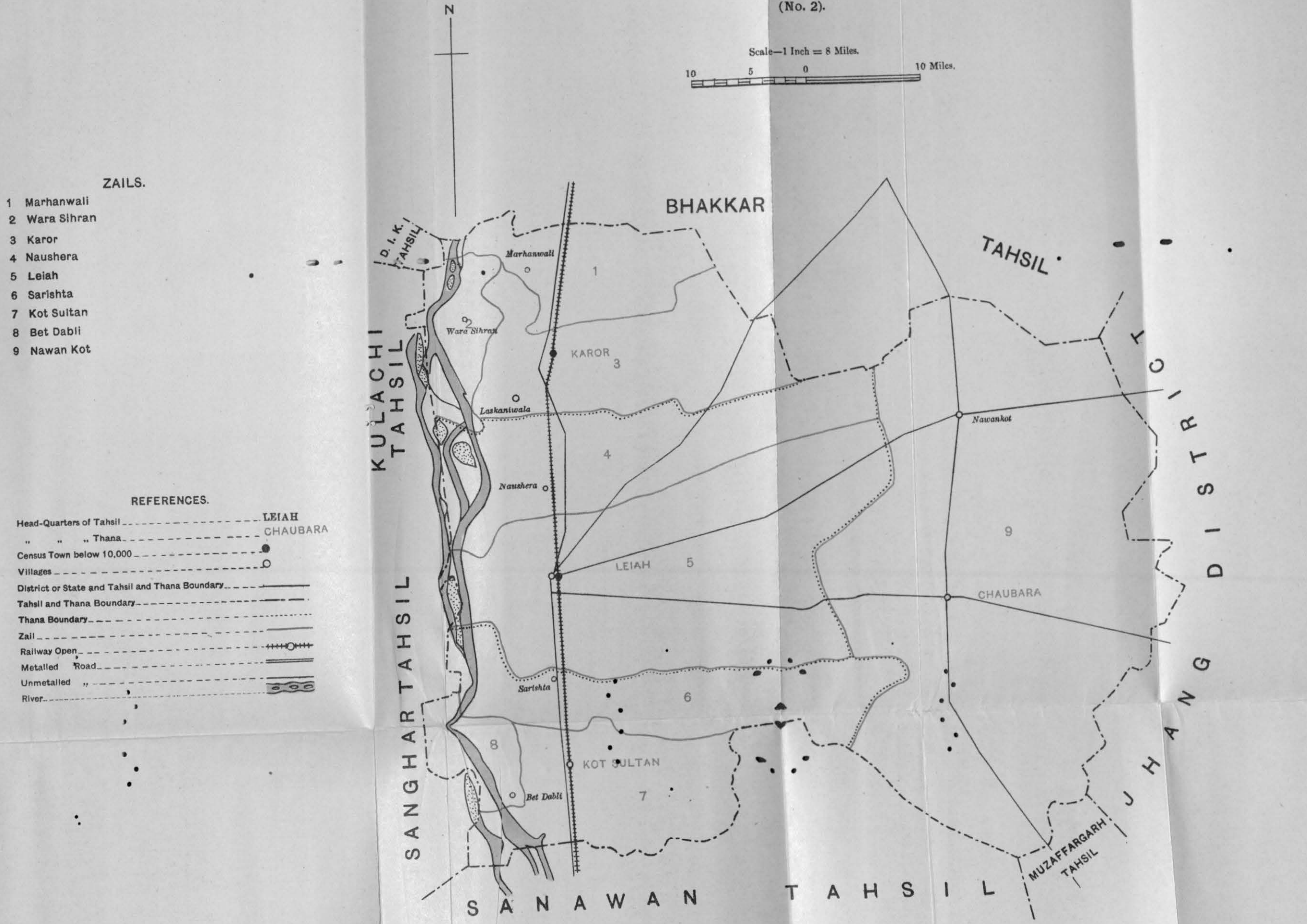
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Map

OF THE

LEIAH TAHSIL.

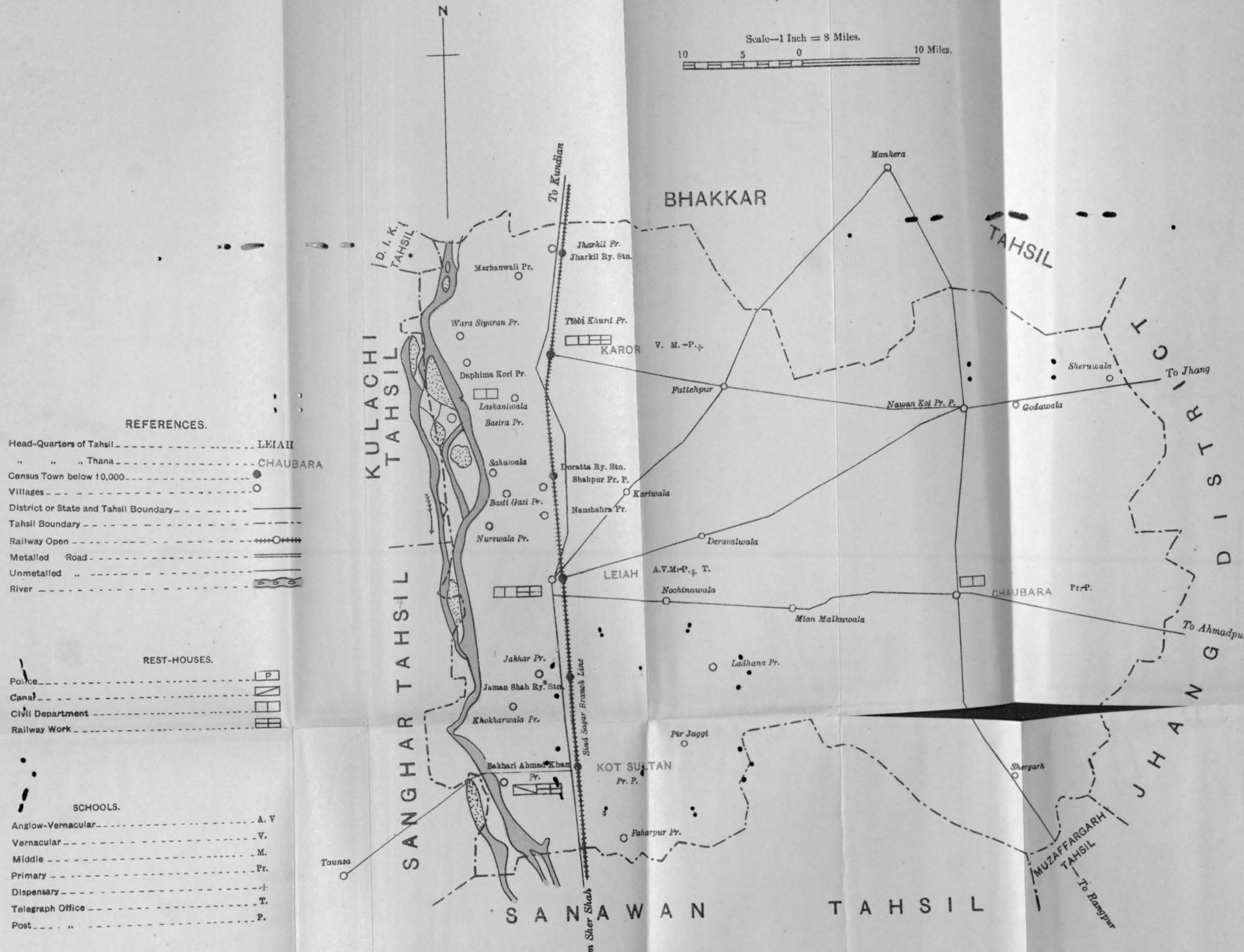
(No. 2).



January, 1917.—No.5242-1-650

Photo.-Mechl. and Litho. Dept., Thomason College, Roorkee.

Map
OF THE
LEIAH TAHSIL.
(No. 3).



January, 1917.—No.6242-2. 650